

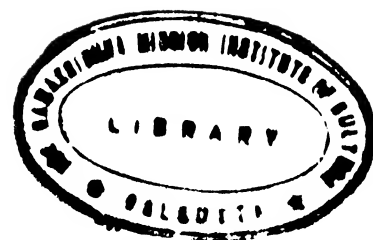
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TABLE XCIV-D.

TIME-EQUIVALENTS,

DECIMALS OF NAKSHATRA-INDEX UNITS.

First 2 decimals.	M.	S.	First 2 decimals.	M.	S.	First 2 decimals.	M.	S.	3rd and 4th decimals.	S.	3rd and 4th decimals.	S.	3rd and 4th decimals.	S.
·01	0	2·36	·34	1	20·26	·67	2	38·16	·0001	0·02	·0034	0·80	·0067	1·58
·02	0	4·72	·35	1	22·62	·68	2	40·52	·0002	0·05	·0035	0·83	·0068	1·61
·03	0	7·08	·36	1	24·98	·69	2	42·88	·0003	0·07	·0036	0·85	·0069	1·63
·04	0	9·44	·37	1	27·34	·70	2	45·24	·0004	0·09	·0037	0·87	·0070	1·65
·05	0	11·80	·38	1	29·70	·71	2	47·60	·0005	0·12	·0038	0·90	·0071	1·68
·06	0	14·16	·39	1	32·06	·72	2	49·96	·0006	0·14	·0039	0·92	·0072	1·70
·07	0	16·52	·40	1	34·42	·73	2	52·32	·0007	0·17	·0040	0·94	·0073	1·72
·08	0	18·88	·41	1	36·78	·74	2	54·68	·0008	0·19	·0041	0·97	·0074	1·75
·09	0	21·25	·42	1	39·14	·75	2	57·04	·0009	0·21	·0042	0·99	·0075	1·77
·10	0	23·61	·43	1	41·51	·76	2	59·40	·0010	0·24	·0043	1·02	·0076	1·79
·11	0	25·97	·44	1	43·87	·77	3	1·77	·0011	0·26	·0044	1·04	·0077	1·82
·12	0	28·33	·45	1	46·23	·78	3	4·13	·0012	0·28	·0045	1·06	·0078	1·84
·13	0	30·69	·46	1	48·59	·79	3	6·49	·0013	0·31	·0046	1·09	·0079	1·86
·14	0	33·05	·47	1	50·95	·80	3	8·85	·0014	0·33	·0047	1·11	·0080	1·89
·15	0	35·41	·48	1	53·31	·81	3	11·21	·0015	0·35	·0048	1·13	·0081	1·91
·16	0	37·77	·49	1	55·67	·82	3	13·57	·0016	0·38	·0049	1·16	·0082	1·94
·17	0	40·13	·50	1	58·03	·83	3	15·93	·0017	0·40	·0050	1·18	·0083	1·96
·18	0	42·49	·51	2	0·39	·84	3	18·29	·0018	0·42	·0051	1·20	·0084	1·98
·19	0	44·85	·52	2	2·75	·85	3	20·65	·0019	0·45	·0052	1·23	·0085	2·01
·20	0	47·21	·53	2	5·11	·86	3	23·01	·0020	0·47	·0053	1·25	·0086	2·03
·21	0	49·57	·54	2	7·47	·87	3	25·37	·0021	0·50	·0054	1·27	·0087	2·05
·22	0	51·93	·55	2	9·83	·88	3	27·73	·0022	0·52	·0055	1·30	·0088	2·08
·23	0	54·29	·56	2	12·19	·89	3	30·09	·0023	0·54	·0056	1·32	·0089	2·10
·24	0	56·65	·57	2	14·55	·90	3	32·45	·0024	0·57	·0057	1·35	·0090	2·12
·25	0	59·01	·58	2	16·91	·91	3	34·81	·0025	0·59	·0058	1·37	·0091	2·15
·26	1	1·58	·59	2	19·28	·92	3	37·17	·0026	0·61	·0059	1·39	·0092	2·17
·27	1	3·74	·60	2	21·64	·93	3	39·54	·0027	0·64	·0060	1·42	·0093	2·20
·28	1	6·10	·61	2	24·00	·94	3	41·90	·0028	0·66	·0061	1·44	·0094	2·22
·29	1	8·46	·62	2	26·36	·95	3	44·26	·0029	0·68	·0062	1·46	·0095	2·24
·30	1	10·82	·63	2	28·72	·96	3	46·62	·0030	0·71	·0063	1·49	·0096	2·27
·31	1	13·18	·64	2	31·08	·97	3	48·98	·0031	0·73	·0064	1·51	·0097	2·29
·32	1	15·54	·65	2	33·44	·98	3	51·34	·0032	0·76	·0065	1·53	·0098	2·31
·33	1	17·90	·66	2	35·80	·99	3	53·70	·0033	0·78	·0066	1·56	·0099	2·34



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हाराजाधिराजश्रीधर्मपालदेवपादानुध्यातः

परमसीगतः परमेश्वरः परमभटा(हा)रको महाराजाधिराजः श्रीमान्देवपा-

26

लदेवः

कुमारी । श्रीनगरभुक्तो राजगृहविषयान्तःपाति अजपुरनयप्रतिव(ब)ह-
स्वसम्ब(म्ब)हविष्णुवतलोपित । नन्दिबनाक । मणि-

27

वाटक । पिलिपिष्कानयप्रतिव(ब) नटिका । अ-

चलानयप्रतिव(ब)ह ह[स्ति]याम । गयाविषयान्तःपातिकुसुदत्त¹ श्रीधी-
प्रतिव(ब)ह पालाम-

28

कथामेषु । समुपगताम्(न्) सर्वानिव राज-
राणक । राजपुत्र । राजाभात्य । महाकात्तिकृतिक । महादण्डनायक ।
महाप्रतीहार । महा-

29

सामन्त ।

महादोःसाधसाधनिक । महाकुमारा[मा*]त्य [i*] प्रमाह । शरभङ्ग[i*]
राजस्थानी । श्रीपरिक² । विषयपति [i*] दायापराधिक । श्रीरोह-
निक । दाण्डि-

30

क [i*] दाण्डपायिक [i*] श्रीस्विक [i*] [गौ]स्विक । चेचपाल [i*] कोटपाल ।
खण्डरत्न [i*] तदायुक्तक । विनियुक्तक । हस्तश्रीङ्गनीव(ब)लव्याप-
तक[i*]

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किशोरवडवागोमहिष्यधिकृत । दूतप्रे[ष]णिक । गमागमिक । अभित्व-
रमाणक । तरिक । तरपतिक । श्रीद्र(ङ्)-मालव-खग-कुलिक । कर्णा-
ट [ङ्]ण ।

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चाटभ[ट*]सेवकादीनग्यांशकीर्तितान् स्वपादपद्मोपजीविनः प्रतिवासि-
नश्च ब्राम्ह(ब्राह्म)णीतरान् महत्तमकुटुम्बि(म्ब)पुरोगमेदान्-

33

क । चण्डाल-
पर्यन्तान् समाम्नापयति विदितमस्तु भवताम् यथीपरिलिखितस्वसम्ब(म्ब)-
हविष्णुवतलोपित नन्दिबनाकग्राम । मणिवाट-

34

कथाम ।
नटिकाग्राम । हस्तिग्राम । पालामकथामाः स्वसीमादणयूतिगोचरपर्यन्ताः
सतलाः सोहेयाः सामनधुकाः सजलस्थ-

35

लाः
श्रीपरिकराः सदशापराधाः सचौरोहरणाः परिहृतसर्व(पीडाः) अचाटभटप्रवेष्टा
अकिंचित्प्रथा[ङ्]राजकुलीय-¹ The symbol which has been read as च may be नु² The *daṇḍa* between श्री and श्री was meant to be put after ह to separate the word from the following *uparik*.

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दधिरमधुपानमत्तप्रगीतकूषाण्ड[राक्ष]सपिशाचे [1*]

द[त्त]लयतुल्यकालप्रतिभयनीनृत्यम्कवन्धशतयोनौ (a) [॥ २० ॥*] (b)

(a) Read °भयनत्यरकवन्धशतयोनौ. (b) Metre: Giti.

[योनि]कलाक्षसाधनमा[योध]नशिरसि (a) विक्रमादित्य[म् 1*]

कण्टमात्रपरिच्छदम् (b) एकाकिपलायितम् [क्षत] (c) [॥ २१ ॥*] (d)

(a) Read °लक्ष°. (b) Read कण्ट°. (c) Read °क्षदमेकाकिपलायितं हतवान्.
(d) Metre: Āryā.

रत्नप्रभाखचितकाञ्चनशारिबन्ध (a)

साम्राज्य (b) नागमकिवारणनामधेय[म्*] (c) [1*]

नित्यानुबन्धमदनिजरमद्रिनाथ (d)

साक्षादिव द्विपसहस्रकृतानियातम् (e) [॥ २२ ॥*] (f)

(a) Read रत्न° and °बन्ध. (b) Read साम्राज्य. (c) Read °नरिवारण°. (d) Read °निर्भरमद्रिनाथ°. (e) Read °कृतानुयातम्. (f) Metre: Vasantatilakā.

त्रिदशपतितुरंगस्थेवमष्टमंगलयत्ने (a)

वरसञ्चलसम् प्रव्यक्तकल्याणजाति (b) [1*]

तुरगमतिशयाख्या (c) रत्नपल्याणवन्तम्

सतमपि (d) हयलक्ष्मामरच्छन्नकर्णे [॥ २३ ॥*] (e)

(a) Read perhaps °तुरंगस्पष्टमंगलयत्नं. (b) Read perhaps वरममलसम्प्रव्यक्त°. (c) Read °याख्यां रत्नपल्याणवन्तं. (d) Read युतमपि. (e) Metre: Mālinī.

समरपरिग्रहस्य सदृत्वशमहपलमलयुजवोकम् (a) [1*]

रत्नखरमनुपम (b) माणिक्यमरकतनिवेशमण्डनम् [॥ २४ ॥*] (c)

(a) Read °समसदृशं लसममहोपलमालायुजमेकम्. (b) Read रत्न° and °मनुपमं च. (c) Metre: Giti.

सञ्चलगुणं गुणस्तकटिसूत्रम् उदीर्णम् मणिप्रभम् (a) [1*]

भासुरकिरणमालिकोटमाणिक्यमनघमविश्रुतम् (b) [॥ २५ ॥*] (c)

(a) Read गुणस्तकटिसूत्रमुदीर्णमणिप्रभम्. (b) Read °कोटिमाणिक्यमनघमविश्रुतम्. (c) Metre: ?

मनसि भयवि[— — —*]र्पयन्त्यार्थिवाना- (a)

न्दिशि दिशि चटितनित्यो यशम् पुष्पमाला[म्*] (b) [1*]

इदम् महरदशेष (c) सक्तया शक्तलक्ष्म्या

सह वपुषी (d) विशेषालंभते वीरकृत्या [॥ २६ ॥*] (e)

(a) Read perhaps भयविषादावर्ष°. (b) Read चलितादिर्दो यथा? (c) Read हयमहरदशेष. (d) Read वपुषि. (e) Metre: Mālinī.

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TRANSLATION.¹

Mahēndravarman's son (was) **Paramēśvaravarman,**

(Verse 5.) who was a subduer of all (enemies), just as Bharata (bore the surname) Sarvadamana²; who avoided improper conduct (*asamañjasa*), just as Sagara banished (his son) Asamañjasa³; who possessed a strong body (*aṅga*), just as Karṇa (was the king) of the rich Aṅgas; who was fond of poems (*kāvya*), just as Yayāti was fond of (his father-in-law) Kāvya (Uśanas);

(Verse 6.) whose command always becomes a chaplet on the heads of (*i.e.* is received with respect by) independent kings, (but) also confers splendour on the faces of (*i.e.* fills with joy) (his) friends by reaching (their) ears, [just as an ear-ring (*kaṇṭhapūra*) becomes an ornament to the face];

(Verse 7.) (who) is clever in the sport of fine arts (*kalā*) (and) constantly passionate in love,⁴ and who avoids vice (*mukt-āguṇa*) in (his) heart, (but) also (becomes) a pearl-necklace (*muklā-guṇa*) on the breast of (his) wives;

(Verse 21.) who put to flight **Vikramāditya**,—whose army (had consisted) of several lakhs, (but who was left) quite alone (and) covered only by a rag,—at the head of a battle,

(Verse 8.) in which the disk of the sun was made to assume the likeness of the circle of the moon through the mist of dust produced by the stamping of countless troops of men, horses, and elephants;

(Verse 9.) which inspired terror through the thunderlike sound of kettle-drums; in which unsheathed swords (reminded of) the curves of flashes of lightning; in which elephants were advancing like clouds; (and which therefore) resembled an unseasonable breaking of the monsoon;

(Verse 10.) in which tall steeds (looked like) high waves; in which elephants tore up the ground on their path, just as sea monsters produce whirlpools in diving up; in which conches were incessantly blown (or: cast up); (and which therefore) resembled the gaping ocean;

(Verse 11.) which contained curved swords and shields (*avarana*), (resembling) rhinoceroses, creepers, and *varaṇa* (trees); which teemed with heroes holding bows and (riding) mighty elephants, (as if it were) covered with *śara* (grass) and with *asana*, *nāga*, *tilaka*, and *punnāga* (trees); in which confused noises were raised; (and which therefore) resembled a forest agitated by a violent wind;

(Verse 12.) in which bows were bent by warriors; in which the air was obstructed by arrows flying past each other; in which javelins, pikes, darts, clubs, lances, spears, and discs were flying about;

(Verse 13.) in which troops of *mast* elephants firmly impaled each other's faces with the thunderbolts of their tusks; in which squadrons of horsemen were connected by their swords that had struck each other's heads;

¹ To make the construction clear, I had to place verse 21 before verse 8.

² Cf. *Mahābhārata*, I, 74, 8; VII, 68, 7, and *Śakuntalā*, ed. by Cappeller, p. 93, l. 2; p. 95. l. 24; p. 97, l. 8; p. 102, l. 21.

³ In the epic poems he is called Asamañja or Asamañjas.

⁴ The poet seems to hint a comparison of the king to the moon, who is 'charming in the splendour of his digits (*kalā*),' and to Śiva, who 'was angry with the god of love.'

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F. W. THOMAS

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ADDITIONS AND CORRECTIONS.

Page 2, l. 5.—For *-viddhyud-* read *-viddhyā-*

„ „ „ 24.—For (*puram*) read (*puravā*).

„ 6, Translation of l. 37—Śivāṅkāśrayābhyah translated “who resided near (the temple of) Śiva” suggests that the recipient Brahmins had their homes near the Parāśurāmōśvara temple at Guḍimallam, for which there are not sufficient indications at present. Perhaps a better interpretation of the compound would be Śivāṅkānāṁ āśrayāḥ, the abodes of symbols (such as ashes, beads, liṅga etc.) of Śiva.

„ 10, l. 15.—For *Chāṇḍāla* read *Chāṇḍāla*.

„ 11, Text l. 3.—[Possibly *Niya* was the name of the carpenter (*raḍaki*) who made the gift.—H. K. S.]

„ „ l. 38.—For *Bhūmi naga* read *Bhūmināga*.

„ 12 „ 8.—For *blocks* have read *block* has.

„ „ last line.—For *before r*, read *after r*,

„ 13.—Insert at the end of the introduction on page 13. [Prof. Hultsch and Mr. K. N. Dikshit have simultaneously invited my attention to Dr. Sukthankar's omission to have noted the very important paper on the Poona plates of the Vakāṭaka queen Prabhāvatī Guptā, the daughter of the Gupta Emperor Chandra Gupta II, which Messrs. Dikshit and Pathak had together published on p. 39 of Vol. XV of the *Ep. Ind.* From this it is clear that Prabhāvatī Guptā and her husband Rudrasēna II, the sixth in descent from Pravarasēna II, were contemporaries of Chandra Gupta II, the son and successor of Samudra Gupta of the beginning of the 5th Century A.C. Consequently, the Gaṅj inscription which, palaeographically is ascribed to be that of Prithviśhēna I, must belong to about the end of the 4th Century A.C.; but it is very unlikely that the Prithviśhēna of this inscription is the first of that name. If, however, he is the second, the record may be roughly referred to the beginning of the 6th Century A.C.—H. K. S.]

Page 15, f. n. 2, 4th line—for श्री महेन्द्रविक्रमवर्मा read श्रीमहेन्द्रविक्रमवर्मा

„ 18, l. 16—insert comma after 307.

„ 106, l. 11—For *bhāṭa-rāṭa*^o read *bhāṭa-rāṭa*^o.

„ „ paras. 3 & 4.—[Dr. Sukthankar in criticising Dr. Sten Konow with regard to the meaning of प्रावेश्य has not noted the significance of the word एतत् which occurs in एतत् प्रावेश्य of line 4 of the Khariar grant of Mahāsudēva where two villages Navannaka and Śāmbilaka adjoining Navannaka, were granted. There is, thus, no indication of Navannaka being a territorial division expressed by the term प्रावेश्य added to it as supposed by Sukthankar, whereas प्रावेश्य as an independent word indicates certainly the sense of proximity, or better, a dependence on the village immediately mentioned before it.—Ed.]

„ 107, Text, l. 10.—Insert कवि after स्वामायुक्त

„ „ f. n. 6.—For द्वेव read द्वेव.

„ „ „ 7.—For बालवाच्य read यामि बालवाच्य

Page 108.—*Inscription B.*—The missing second plate of this inscription has been discovered at Iyāveja by Mr. D. B. Diskalkar, M.A., Curator, Watson Museum of Antiquities, Rajkot, and will shortly be published by him in this journal.—Ed.

- „ 108, f. n. 2.—For *upadhmāntya* read *upadhmāntya*.
 „ 109, l. 10.—Dr. Sukthankar is not right in his guess; for the *dātaka* of the grant as found in the missing plate is Rudradhara. But the writer was Kikkaka, here spelt Kikaka.—Ed.
 „ 109, f. n. 2.—For *Dhruvasōna* read *Dhruvasēna*.
 „ 110, l. 3.—For *Rotghamitra* read *Rotghamitra*.
 „ „ l. 5.—For *Āśvina* read *Āśvayuja*.
 „ „ Text l. 7.—For *-gītan* read *-gītau*.
 „ „ „ 8.—For *āchchihettā* read *āchchhettā*.
 „ „ „ 9.—To =vū, add the footnote 'Read =vā'.—Ed.
 „ „ „ 11.—For *Kikkakena* read *Kikkakēna*.
 „ „ f. n. 2.—For *āgami* read *āgāmi*.
 „ * 111, l. 3.—For '34' read '33'.
 „ „ „ 8.—For 'these two sets' read 'this set'.
 „ „ „ 16.—For *Tirunalūr* read *Tirunālūr*.
 „ „ „ „ —For *°nallūr* read *°nalūr*.
 „ „ „ „ —For *'Sunepuha°'* read *'Sunaipuha°'*.
 „ „ „ 17.—Insert after '*Nārāyaṇāmbikā*', "or *Nārāṇadēvi-auva*."
 „ „ „ 11 from the bottom.—For *Tirunalūr* read *Tirunālūr*.
 „ „ „ „ „ „ For *°perumā-nallūr* read *°perumā-nalūr*.
 „ „ „ 10 „ „ For *Sune°* read *Sunai°*.
 „ „ „ 9 „ „ For *Mēlmurī* read *Mēlemuri*.
 „ „ „ „ „ „ For *Maḷa-nādu* read *Maḷa-nādu*.
 „ „ „ 8 „ „ Insert before 'villages', "first three".
 „ „ „ 7 „ „ For *Tiruchohirāppalli* read *Tiruchchirāpalli*.
 „ „ „ 5 „ „ Insert after 'twelve' the following : " *haricāyas* of food should be supplied, one".
 „ „ „ „ „ „ For lumps read lamp.
 „ „ „ „ „ „ Insert after 'burned' "one".
 „ „ „ „ „ „ For garlands read garland.
 „ „ last line.— For 1,82 read 1,823.
 „ 112, l. 2.—Insert '*rāṇ-payir*' after '*punsey*'.
 „ „ „ „ For '*ppēru°*' read *°pperu°*.
 „ „ „ 3.—Cancel (*taṇi-kaḍumai*).
 „ „ „ „ For *ālukku°* read *oḷukku°*.
 „ „ „ 4.—For *kaṭṭigai-avasaram* read *kaṭṭige-avasara*.
 „ „ „ „ For *paṭai-kāṇikkai* read *paṭai-kāṇike*.
 „ „ „ 10.—For *Pār* read *Pēr*.
 „ „ „ 11.—Omit the passage from *Ālukku°* to *nṭrāṇikkam* in l. 13.
 „ „ „ 13.—For *Magamai* read *mahamai*.
 „ „ „ 17.—For *Kaṭṭigai-avasaram* read *Kaṭṭige-avasara* and add in a foot-note [This term does not indicate any tax on firewood as the author suggests but may have to be connected with *kaṭṭige-yava*, a mace-bearer, or in this case the village servant who carries the staff of office with him.—Ed.]

*[The following numerous corrections on pp. 111 to 117 have been necessitated by the proof being passed by the office in the belief that it had been revised by the author].

- Page 112, l. 18.—For -kkāṇikkai read kāṇike.
- „ „ „ 23.—For Tiruchchirāppalli read Tiruchchirāpalli
- „ „ „ 23.—For Tirunalūr read Tirunālūr.
- „ „ „ 24.—For Śēranai° read Śēranai° and for °nallūr read °nalūr.
- „ „ „ 24.—For Melmuṇi read Mēlomuri.
- „ „ „ 24.—For Maḷa-nāḍu read Maḷa-nāḍu.
- „ „ „ 24.—For Suno° read Sunai°.
- „ „ „ 26.—For Tiruchchirāppalli read Tiruchchirāpalli.
- „ „ „ 29.—For Maḷa-nāḍu read Maḷa nāḍu.
- „ „ „ 33.—For Tirunalūr read Tirunālūr and insert after it, [-Tirunallūr].
- „ „ „ 33.—For Śēranai° read Śēranai°.
- „ „ „ 34.—For °ma-nallūr read °mā-nalūr.
- „ „ „ 35.—For Śanepuḥa° read Śunaipuḥa°.
- „ „ Text, l. 1. —Remove the unnecessary extra bracket after नमः() and insert a hyphen at the end of the line.
- „ „ „ 2.—For वृ read वृ.
- „ 113 „ 3.—For खे read खे and cancel foot-note.
- „ „ „ 6.—For 'मंशुधि' read 'मंशुधि'.
- „ „ „ 8.—For 'यद' read 'यद'.
- „ „ „ 14.—For 'हारिहरि' read 'हारी हरि'.
- „ „ „ 23.—For 'जन्म त' read 'जन्मत'.
- „ „ f. n. 9.—For अस्मान read अस्मानं.
- „ 114, Text l. 29. —For मूक' read मूक' and add in a footnote “ [र' is the letter ra as generally transcribed in Nāgarī,—Ed.]”
- „ „ „ „ 31.—For 'हये read 'हये and correct into 'हये.
- „ „ „ „ 34.—For मासि read नासि and correct into मासि.
- „ „ „ „ 36.—Insert after '[ज्ये]' the letter 'द' and correct '[राज्ये]द' into 'रा[ज्ये]थ.
- „ „ „ „ 37.—Carry the footnote number 14 to 'मो of the preceding word.
- „ „ „ „ „ —For 'तिरुनलू' read 'तिरुनलु' and correct into 'तिरुनलु.
- „ „ „ „ 38.—Correct in a foot-note 'नलूरपि into 'नलूरपि. Insert space after उत्तरे and for 'कन्या° read 'कन्य'.
- „ „ „ „ 39.—Insert “ [|| 23*] ” after 'धे and add a foot-note “ read वलाभिधे [वलाभिधे]. [This word which occurs in connection with Rājagambhira and Rājārāja, both in lines 36 and 38 f, has perhaps to be understood in the sense of the Tamil वल्लाडु, a territorial subdivision, as suggested also by its use below, in ll. 52 and 56 f.—Ed.]”
- „ „ „ „ „ —Insert as a foot-note on प्रहजपदे:—“[प्रहजपदे perhaps stands for प्राहजपदे which is perhaps a Sanskritised form of Maḷanāḍu.—Ed.]”
- „ „ „ „ „ —Correct सुनेपुहलुखी into सुनेपुहलुखी in a foot-note.
- „ „ „ „ „ —Insert after उमी “ [1*].”
- „ „ „ „ 40.—Read श्रीरंगराजशपरि as one word.
- „ „ „ „ 41.—After “ [1 ” insert [24*].
- „ „ „ „ „ —For स्वनि श्री read स्व श्री and correct the same into स्वनि श्री [|| 1*].

Page 114, Text l. 42.—Insert a foot-note on सुधः—“Read युद्ध”.

” ” ” ” 44.—For नारायण^० read नारण^०.

” ” ” ” 46.—For परि^० read हरि^० and insert spaces after ष and ने

” ” ” ” —For वगमाल^० read वनमाल.

” ” ” ” 47.—For तिरु^० read तिरि^० and correct into तिरु. The letters दके की ought to be in [].

” ” f. n. 9.—Add at the end : “ [Perhaps प्रकल्याण^० was meant—Ed.] ”

” ” ” 13.—For मिधकावेर्या^० read मिधे कावेर्या^०.

” ” ” 14.—Cancel the hyphen at the end and insert [| 22*]

” ” ” 15.—For सत्यकन्याया read सन्नकन्याया.

” ” ” 16 & 17.—[Perhaps metrical considerations would require some corrections like श्रीरंगराट्सपर्यायं नारायणाभिधानतः —Ed.]

” ” ” 25.—For चान्दक^० read चोदके.

” 115, Text l. 51.—For सुध read सुध.

” ” ” ” 53.—Correct in a foot-note, ‘हीमलि^०’ into ‘हीमलि^०’.

” ” ” ” 54.—Correct तिरुनालुर into तिरुनालूर.

” ” ” ” 55.—For नलू read नल and correct into नल^०.

” ” ” ” 56.—In १४०३ put the nought in square brackets with an asterisk.

” ” ” ” —For °कर read °करे.

” ” ” ” —For ‘वळ’ read ‘वळ’.

” ” ” ” 57.—For सुने^० read सुने^० and correct in a foot-note °नलुर into °नलूर.

” ” ” ” 58.—For उभय(:) read उभयं.

” ” ” ” 59.—Insert a space after कंड and add in a foot-note “ [कंड perhaps stands for कण्ड i. e., संकण्ड —Ed.] ”

” ” ” ” 64.—For श्री read श्री and correct the whole into श्रीलक्ष्मीप्याह in a foot-note.

” ” ” ” 67.—Carry foot-note No. 15 to the end of अनुकंता.

” ” ” ” 71.—Insert space after the first letter in the line and correct in a foot-note माच^० into चाच^०.

” ” f. n. 4.—Omit मे at the end of the correction.

” ” ” 6.—Change the foot-note thus: “ Read सीरनेचंडपेरुमानलूर as in the Sanskrit portion in l. 37.”

” ” ” 9.—For चान्दके read चोदके.

” ” ” 14.—For पच read पच.

” ” ” 15.—For हीमवर्षि read अनुल्लंथा.

” 116, Text l. 75.—For 22 read 25 and for स्वदत्ता read स्वादत्ता and correct into स्वदत्ता

” ” ” ” 76.—For षट्तिवर्ष^० read षट्तिवर्ष^० and correct into षट्ति वर्ष^०.

” ” ” ” 77.—For 23 read 26.

” ” ” ” 79.—For 24 read 27.

” ” ” ” 80.—For दत्ता^० read दत्ता and correct into दत्ता^०.

” ” ” ” 82.—For °स्त्री read °स्त्री.

” ” ” ” —For 26 read 29.

” ” ” ” 83.—For °विह^० read °विह^० and correct into °विह^०.

” ” Vv. 6-7.—For kaustabha read kaustubha.

” ” ” 10-12, last sentence.—For °Lakshmi read -Śrī and for as read tho.

- Page 116, line 3 from the bottom.—For *Śēra*^o read *Sēra*^o.
- „ „ „ „ „ „ —For *Śune*^o read *Sunai*^o.
- „ „ last line.—For *Monday* read *Sunday*.
- „ „ f. n. 3.—Insert ‘and’ before *इचाणि*.
- „ „ „ 6.—Insert *चा* before *हि*.
- „ „ „ 7.—Insert *दत्ताप* before *हारिण*.
- „ „ „ 8.—Cancel *पहारिण*.
- „ 117, l. 3.—For *Sēraṇaibenda*^o read *Sēraṇaibanda*^o.
- „ „ „ 4.—For *Triśirāppalli* read *Tiruchchirāpalli*.
- „ „ „ 6.—Insert *Sahyakanyā* before *Kāvēri* and put the latter in round brackets and add
“in the *Prāvriddjanapada* i.e., in the *Maḷa-nāḍa* district”.
- „ „ para. 2, l. 3.—Insert at the end of the line “sacred food, of one”.
- „ „ „ „ 4.—For *lamps* read *lamp* and insert ‘one’ after the comma.
- „ „ „ „ 4.—For *garlands* read *garland*.
- „ „ „ „ 5.—For *Nārāyaṇa*^o read *Nārāṇa*^o.
- „ „ „ „ 5.—Insert after *Pāṇḍamaṅgalam* “with its hamlets.”
- „ „ „ „ 6.—For *Sune*^o read *Sunai*^o.
- „ „ „ „ 11.—For *Chirichrapalli* read *Tiruchchirāpalli*.
- „ „ „ „ 11.—For *Sune*^o read *Sunai*^o.
- „ „ „ „ 12.—For *Mēlamugi* read *Mēlemuri*.
- „ „ „ „ 12.—*Maḷa* read *Maḷa*.
- „ „ „ „ 17.—Cancel *tarikkaḍamai* at the end of the line.
- „ „ „ „ 18.—For *olukunipāṭṭam*, read *olukkunirpāṭṭam*.
- „ „ „ „ 18.—For verses 22-26 read verses 25-29.
- „ 118, text lls. 5 & 6.—I would add a hyphen at the end of l. 5 and take *mahōdya* —
mahādharaēndra as one word, thus altering the sense. The chief who is
described was a Sun on the Lord of mountains, i.e., the great eminence of
the Kadaмба family.—Ed.
- „ 130, l. 40, for *XIV* read *XVI*.
- „ 150, coll. 6-7 for *Śōchana* read *Śōbhana*.
- „ 189, „ 29, for *nāme* read *namo*.
- „ 191, f. n. 3, for the letter *वृ* after *य* (?) read *वृ* after *यृ*.
- „ „ „ 12, insert length after “*अ*”.
- „ 193, l. 22, for *Tōramāna* read *Tōramāṇa*.
- „ 194, para. 5, l. 4, for *Karuṇāṭa* read *Karṇāṭa*.
- „ 196, „ 2, „ 13, for *Śiddhaladēvi* read *Śiddhaladēvī*.
- „ „ „ 3, „ 2, for *Kārttiga* read *Kārttika*.
- „ 197, „ 1, „ 2, for *Hastināvatī* read *Hastināvatī*.
- „ „ „ 3, „ 1, for *Durga-Bhaṭṭa* read *Durgā-Bhaṭṭa*.
- „ „ f. n. 4, for *६* read *६*.

Page 198, text l. 12, for सगम. read संगम.

- „ 200, f. n. 8 for शत्रु; read शत्रु; for see above, note 1 read see above, note 7.
- „ 203, trans. of v. 9. for Udaiya- read Udaya-
- „ 204. l. 8, for kère read kere.
- „ „ l. 21, delete who received.
- „ 291, 4th line from the bottom, insert the word “after” after “and” in brackets.
- „ 292, l. 5, for kkoḷṭiya read kkoḷṭiya.
- „ 293, l. 27, omit n of Kaḷabhran.
- „ „ f. n. 4, last line, for Śadaiyaṇ read Śadaiyaṇ.
- „ 294, l. 35, insert after orator: “thus making it clear that Mangalarāja Madhurātara is identical with Madavikalan Māraṅgāri mentioned in the previous paragraph”.
- „ „ l. 38, insert after certain: “Śuttakōśari-pPerumbaṇaikkāraṇ. The document was signed by”; and after Perumbaṇaikkāraṇ “who seems to be identical with the engraver Śuttakōśari-pPerumbaṇaikkāraṇ”
- „ 295, l. 10, for Kaḍuṅgōṇ read Kaḍuṅgōṇ.
- „ „ l. 22, for Madurātara read Mudhurātara.
- „ „ l. 27, for grove read drove.
- „ „ f. n., for *Epigraphia Indica* read *S. I. I., Vol. III, Pt. IV.*
- „ 296, l. 2, for inscriptions read inscription.
- „ 297, l. 29, for Maḷuva read Muḷava.
- „ „ l. 33, for Kuṟumaḍai read Kuṟumaḍai.
- „ „ f. n. 3, for °-Vaḷanāḍu read °-vaḷanāḍu.
- „ 308, l. 15, insert “(?)” after Kuṟumbunāḍu.
- „ „ l. 36, for Kuḷandevaṇ read Kuḷandaivaṇ.
- „ 309, l. 6, for race read people and omit °ttavar of Karavandapurattavar.
- „ „ trans. of v. 19, remove the brackets of (learned) and use roman type.
- „ „ trans. of l. 152, for °-pPerumbāṇaikkāraṇ read °-pPerumbaṇaikkāraṇ.
- „ „ f. n. 1, for Pāṇḍya read Pāṇḍya.
- „ 311, l. 11, omit ‘made through an ambassador,’
- „ „ l. 17, for Rājagrīha read Rājagriha.
- „ „ para. 2, 4th line from end, for Kalāsan read Kalasan.
- „ 312, l. 11, from end, for Prambanam read Prambanan.
- „ 313, l. 6, for extending read governing.
- „ „ l. 6, from bottom, for a dūtaka or ambassador read dūtas or ambassadors.
- „ „ f. n. 5, for Sailēndras read Śailēndras.
- „ 314, l. 7, for Kalāsan read Kalasan.
- „ 315, l. 14, for Kuṇḍinga read Kuṇḍiṅga.
- „ 317, l. 26, insert -naya after Pilipiṇkā.
- „ 317, f. n. 6, after ‘document.’ at the end, add “That Nagara by itself was used as a synonym of Kusumapura or Pāṭaliputra is evidenced by the *Dharmavivaraṇa* of Iśvaradatta (pp. 3 f.) published in the *Chaturbhāṇī* in 1922 by Mr. M. Ramakrishna Kavi, M.A., Teacher’s College, Rajahmundry.

Page 320, text l. 24, for °समावासि° read °समावासित°.

„ 321, f. n. 2, for *uparik*, read *uparika*.

„ 323, text l. 57, for °तीर्णर्ग° read तीर्णैर्ग°; for शनर्क° one should expect शनर्क; or the poet might have used शनर्क as a derivative of शन treating it as a stem like नौचर्क from नौच; and for °१° read °१°.

„ 324, f. n. 1, for *Sakti* read *Śakti* (twice).

„ 325 l. 9, for *-mahishyadhikṛita* read *-mahishyadhikṛita*.

„ „ l. 13, for *Brahmaṇḍottaras*, read *Brāhmaṇḍottaras*.

„ „ l. 14, for *Chāṇḍālas* read *Chañḍālas*.

„ 328, l. 18, for *-Hiranyagarbha-* read *-Hiranyagarbha-*.

„ „ l. 28 beginning, for *gf* read *of*.

„ 335, l. 13, for *Guddādi-* read *Guddādi*.

EPIGRAPHIA INDICA

VOLUME XVII

No. 1.—GUDIMALLAM PLATES OF THE BANA KING VIKRAMADITYA II.

By PROFESSOR E. HULTZSCH, PH.D.; HALLE (SAALE).

These plates were found at **Gudimallam** in the **Kālahasti** Zamīndārī, and were forwarded to Rao Bahadur H. Krishna Sastri by Mr. K. Raghaviah of Kālahasti. They have been acquired for the Government Central Museum, Madras.

The **copper-plates** are **five** in number and have nine faces of writing, the outer side of the first plate being left blank. The plates are not raised into rims for the protection of the writing, which is, however, in good preservation. They measure $7\frac{1}{4}$ " in length and $3\frac{3}{4}$ " in breadth, and are strung on a copper ring, which measures about $2\frac{3}{4}$ " in diameter, and the two ends of which are fixed in a circular seal. The hole through which the ring is passed was enlarged after the inscription had been already engraved. This led to the total or partial destruction of some letters, a few of which were subsequently engraved a second time below the ring-hole. The **seal** bears, in relief, the figure of a bull couchant, facing the proper right, and above it what looks like a lamp-stand and a crescent. The weight of the plates with ring and seal is 133 *tōlās*.

The **alphabet** is old Grantha (ll. 1-53) and old Tamiḻ (l. 53 f.). In the Grantha portion the superscribed *i* is not always distinguished from *i*, nor the subscribed form of *ri* from that of *r*. Final forms of *m* occur in lines 3, 7, 35, 48, 49, 53. In *-dhrik* (l. 30), *chēt* (l. 37), and *°vān* (ll. 26, 29, 47) the Virāma is expressed by a small dash at the right of the final consonant.

The Grantha portion consists of **Sanskrit** prose (ll. 1, 14, 33, 37-47, 51-53) and of 22 verses in the Anuṣṭubh and Āryā metres. Both the language and the metre of some of the Āryā verses are incorrect. In the footnotes on the text I have suggested a few possible emendations, but am unable to furnish a fully satisfactory text and translation of the eight opening verses, which are addressed to Śiva. The remainder of the inscription is quite intelligible, but the wording of it is not always correct. The compounds *-nām-ākhyā* (l. 23), *-ākhyā-nāmaka* (l. 35), and *kidrīg-vidhā* (l. 37) are tautological. In lines 37-39 the author violates the rules of composition by comparing words in the dative plural to nominatives singular; cf. *Sāhityadarpaṇa*, Translation, p. 301, j. In line 50 the neuter *yuga* is used as a masculine, and in line 53 the neuter *likhitam* forms the predicate of the feminine *prastutiḥ* (l. 52). The record ends with a short postscript in the **Tamiḻ** language.

As regards **orthography**, *au* is expressed by *ō* in *-sō* (l. 10) and *mōli* (l. 12). The group *ksh* is replaced throughout by *tsh*, *dm* by *tm* in *patma* (ll. 4, 37), *dh* by *th* in *narāthipa* (l. 24), and perhaps *ddh* by *tth* in lines 5, 10, 11. The lingual *ḷ* is used in *gaḷa* (l. 2). The

rules of Sandhi are neglected in *Nandivarmma iti* (l. 19), *nṛiparāt=bhuja-* and *prādāt-grāman-* (l. 34), *chēt* (l. 37), and *bhyaḥ* (ll. 39, 42 (twice), 52). In *-nīpuṇaḥsh=shadgunē* (l. 30) and in four other cases (ll. 38, 40, 41 (twice)) final Visarga is expressed both by its original form and by a sibilant. Consonants are doubled throughout after *r*, and before *y* and *r* in *-maddhyā* (l. 2), *-viddhyud-* (l. 3), *-viddrā(ddru)ma-* (l. 3), *-mātrās=* (l. 5), *Ruddrō* (l. 9), *Girittreṇa* (l. 33), and *pittrō* (l. 35), but not in *traividyā* (l. 41), *tsha(ksha)tra* (l. 23), *putrēṇa* (l. 32), *vēda-traya* (l. 39), and *vikrama* (passim). The superscribed *r* of double consonants is often omitted through carelessness.

After lengthy invocations of Śiva, which have already been noticed in the preceding remarks, the inscription introduces the demon king **Bali** (v. 9), who is stated to have been the son of Virūchana, and to have granted the earth at a sacrifice to Kṛishṇa (*i.e.* to Viṣṇu in his incarnation as a dwarf). One of Bali's descendants was king **Nandivarman** (v. 10 f.). His son was **Vijayāditya** (v. 12), his son **Malla-dēva** of the Bāṇa race (v. 13), his son **Jayamēru** (v. 14) *alias* **Vikramāditya** (v. 15), his son **Vijayāditya** (vv. 16, 20, and l. 44) *alias* **Prabhumēru** (vv. 17, 21), and his son **Vikramāditya** (v. 20 and l. 44) or **Vikramādityavarman** (v. 18).

According to verse 19 a king named **Nanda**¹ (who may be meant for the Nandivarman of verse 10 f.) had granted to Brāhmaṇas the village called **Viprapīṭha**. With the sanction of his father (v. 20 and l. 45) Vijayāditya's son **Vikramāditya** granted protection (*rakṣā*), *i.e.* a confirmation of the former grant, to the Brāhmaṇas of this village (l. 45), because he had obtained a boon from the god of the **Paraśurāmēśvara** temple (l. 43). In verse 21 f. the donor, Prabhumēru's son, requests future kings to protect his grant. Lines 50-53 record the names of the composer and of the writer of this eulogy (*praśasti*). A postscript in Tamil states that the revenue assessment (*puram*) of the village amounted to 500 *kaḍi* of paddy and 10 (*kaḷaṇju* of) gold (l. 53 f.).

Before discussing the historical information which is supplied by this inscription, I may state that **Viprapīṭha** (v. 19 and l. 45) is clearly a Sanskrit equivalent of **Tiruvippirambēdu**, the ancient name of **Guḍimallam**,² where the temple of **Paraśurāmēśvara** (l. 43) exists to the present day.

When my late friend Venkayya wrote his learned article on five Bāṇa inscriptions at Guḍimallam, which was destined to remain his last contribution to the *Epigraphia Indica* (above, Vol. XI, pp. 222 ff.), no other genealogical inscription of the Bāṇa dynasty was available but the **Udayēndiram** plates published by Kielhorn (above, Vol. III, p. 74 ff.). From the new plates we now learn that the king **Prabhumēru** of the Udayēndiram plates had also the name **Vijayāditya**, and that his father, who is called **Bāṇavidyādhara** in the Udayēndiram plates, had the two additional names **Vikramāditya** and **Jayamēru**. These fresh facts may be used for locating in the genealogical tree a few Bāṇa kings who are referred to in other inscriptions. A *viragal* which was published by Mr. Rice³ belongs to the reign of **Vikramāditya-Jayamēru alias** Bāṇavijyā(dyā)dhara, and mentions a military commander **Prabhumēru** who may be identified with his son and successor **Vijayāditya-Prabhumēru**. Inscriptions both of **Vikramāditya-Jayamēru alias** Bāṇavidyādhara and of **Vijayāditya-Prabhumēru** exist also

¹ An early Rāṣṭrakūṭa king **Nandarāja** is supposed to be mentioned in the Multāi plates of Śāka 631 (*Ind. Ant.*, Vol. XVIII, p. 234); but the actual reading of the plate (l. 9) seems to be नन्दराज. In the Tiwarkhēḍ plates of the same king (above, Vol. XI, p. 279) the reading is distinctly नन्दराज. The genealogy of this **Nandarāja** is the same as in the Multāi plates of Śāka 631, but the date of the Tiwarkhēḍ plates is Śāka 553, which would mean that **Nandarāja** reigned at least 78 years (!).

² See Venkayya's remarks, above, Vol. XI, p. 222.

³ *Ind. Ant.*, Vol. X, p. 39, No. II, and *Ep. Carn.*, Vol. X, Śrīnivāspur Tāluk, No. 6.

in the Puṅganūr Zamindārī of the North Arcot District.¹ One of Venkayya's Gudimallam inscriptions² contains a Śaka date—820—which must be assigned to the reign of Vijayāditya-Prabhumēru, because it calls the Bāṇa king Vijayāditya, to whose reign it belongs, the son of a queen of Bāṇavidyādhara, i.e. of Vikramāditya-Jayamēru. Another queen of Bāṇavidyādhara, named Kundavvai, was the daughter of Pratipati-Araiyar, i.e. of the Gaṅga king Prithivipati I,³ who was a contemporary of the Rāshtrakūṭa king Amoghavarsha I⁴ and of the Pāṇḍya king Varaguṇa.⁵ Two further inscriptions of Vijayāditya (Prabhumēru) furnish the Śaka dates 827 and 831.⁶

According to the Udayēndiram plates, Prabhumēru's great-grandson, Vikramāditya-Vijayabāhu, was a friend of Kṛishṇa-Rāja, who used to be identified with the Rāshtrakūṭa king Kṛishṇa II (about A.D. 900). This identification cannot be upheld, because we have now for Prabhumēru Śaka dates ranging about A.D. 900, but Vijayabāhu's friend Kṛishṇa-Rāja must have been the Rāshtrakūṭa king Kṛishṇa III (about A.D. 950), of whom we know from other sources that he made and held extensive conquests in the South. The Gaṅga prince Prithivipati II Hastimalla, who received the title *Bāṇādhirāja* from the Chōḷa king Parāntaka I,⁷ and whose inscriptions are dated in the 9th and 15th years of the same king⁸ (i.e. A.D. 915 and 921), would thus have been a temporary usurper and a predecessor of Vikramāditya-Vijayabāhu. He was the Chōḷa king's candidate for the Bāṇa throne, while the legitimate ruler Vijayabāhu was the *protégé* of the Rāshtrakūṭa invader. To facilitate reference, I subjoin a tabular statement of the two Bāṇa genealogies.

Gudimallam plates.	Udayēndiram plates.	REMARKS.
Nandivarman.	Jaya-Nandivarman.	
↓	↓	
Vijayāditya (I).	Vijayāditya (I).	
↓	↓	
Malla-dēva.	Malla-dēva.	
↓	↓	
Vikramāditya (I) Jayamēru.	Bāṇavidyādhara.	Son-in-law of the Gaṅga Prithivipati I, who was an adversary of the Pāṇḍya Varaguṇa and of the Rāshtrakūṭa Amoghavarsha I.
↓	↓	
Vijayāditya (II) Prabhumēru.	Prabhumēru.	Inscriptions dated in Śaka 820, 827, 831.
↓	↓	
Vikramāditya (II) (heir-apparent).	Vikramāditya (II).	
	Vijayāditya (III) Pugalvippavarganḍa.	
	↓	
	Vikramāditya (III) Vijayabāhu.	Friend of the Rāshtrakūṭa Kṛishṇa III.

¹ See above, Vol. XI, p. 235.

² *Ibid.*, pp. 227 f.

³ In his Annual Report for 1908-09, p. 13, Mr. R. Narasimhaachar has suggested that the actual name of this chief may have been Diṇḍika.

⁴ *South-Ind. Inscr.*, Vol. III, Nos. 47 and 48.

⁵ See above, Vol. IX, p. 87.

⁶ Above, Vol. XI, p. 228, and *Ep. Carn.*, Vol. X, Muḷbāgal Tāluk, No. 229.

⁷ Above, Vol. IV, p. 225, verses 5.

⁸ *Ibid.*, p. 224, and *South-Ind. Inscr.*, Vol. II, p. 389.

TEXT.¹

First Plate ; Second Side.

- 1 Namaś=Śivāya svasti || Jayati sa sarvva-vyāpi yat-kṛita-pa-
 2 riṇaddha-kandharā-maddhyō [1*] gaḷa-bhūṣaṇ-āhi-²pratibimbam=iva su-
 3 ra-dahana-visham || [1*] Jayati hutāśana-viddyud-viddrā(ddru)ma-saṁghāta-ni-
 4 bha-jatā-bhārah [1*] yach-ebhirasi maṇi-jatā-[bh]ā-rakta-sarit=putma(dma)-māl=ś-
 5 va || [2*] Jayati prañavapyātthō³ lēkhā-māttiraś=śikhā-śaśi yasya [1*] dṛi-
 6 dha-nahana-khinna-vishadhara-van-ānala-dagdha iva latshyaḥ(kshyaḥ) || [3*]

Second Plate ; First Side.

- 7 Jayaty-abdhara-saṁkāśa-kandharañ=ch=āhi-kupḍalam [1*] lalāṭ-ētsha(ksha)ṇam=Ākāśasa-
 8 r[i]n-mālā-dharam vapuḥ || [4*] Jayati vṛish-ēśō dēvō lalāṭa-nayan-āgni-
 9 niva(pa)tit-Ānamgaḥ [1*] asura-pur-āri(ri) Ruddrō jugad-udaya-layaṁkarō bhīmaḥ || [5*]
 10 Jayati sa-nād-ātthō=sō⁴ śakti-dvaya-⁵guṇ-ākarō vibhu-
 11 ś-Śambhuḥ [1] saṁvṛita-mantr-ārth-ārthas=⁶śabd-ādi-guṇair=anupalabhyaḥ || [6*]
 12 Jayati jatā-dhara-mō(mau)lir=Mmandākini-pūrita-⁷mahā-makuṭ-ēśaḥ [1*] Śi(Gi)-
 13 ritanay-ārppita-bhāgō guṇa . . rahitō⁸ vibhu[r*]=vvyāpiḥ(pi) || [7*]

Second Plate ; Second Side.

- 14 Namaś-Śivāya svasti(sti) śri [1*] Jayati sa Kām-āṁga-dahanō⁹
 15 mastaka-nyasta-mugdh-ēnduḥ [1*] k-ādī(di)-tṛiṇ-āntasy=ēśō¹⁰ gupty-u-
 16 tpatti-laya-hētuḥ [1] [8*] Bali[r*]=Vvairōchanō¹¹ nāma Dāna-
 17 v-ēndrō mahā-balaḥ [1*] prādāt=sa gām=makha-varō Kṛishṇāy=āmi-
 18 ta-tōjasēḥ¹² [1] [9*] Tasya ānvayō samu[d]bhūtaḥ pṛithivi(vi)pāla-sa-
 19 ttamaḥ [1*] Nandivarman[ā] itī¹³ khyātūḥ praśamsita-mahā-balaḥ || [10*]

Third Plate ; First Side.

- 20 Jayati¹⁴ sa Nandiva[r]mmā narapati-maṇi-makuṭa-li(li)dha-pāda-
 21 yugaḥ [1] tēna nirākṛita-kalinā samprati rājanvati(tī) pṛithi-
 22 vi[h]¹⁵ || [11*] Tasya sūnur mmahā-virō vėlā-paryyanta-dīpakah [1*] Vi-
 23 jayāditya-nām-ākhyō dharmma-taba(ksha)trabhṛitām varah || [12*] Tasya ābhava-
 24 n-mahā-bāhur Mmalla-dēvō marāthi(dhi)paḥ [1*] Bāṇa-varṁśasya tilaka-
 25 s=samasta-vasudh-ādhipaḥ [1] [13*] Tasya jajñō mahā-śūrō Ja-

¹ From two sets of ink-impressions supplied by Rao Bahadur H. Krishna Sastri.

² For the sake of the metre, a word like *bhōga* may have to be inserted after *-āhi*.

³ Read perhaps *prañavasy-ārdhō*.

⁴ Read perhaps *ādā-rddhō* [or *rittho*?—F. W. T.] = *śau*.

⁵ For the sake of the metre, *śakti-arddha* may have to be read. ⁶ Read perhaps *-ārdhāś*.

⁷ For the sake of the metre, *-pūrita* may have to be replaced by its synonym *-bhṛita* [and perhaps *makuṭ-ēśaḥ* is for *makuṭaḥ*. But the scansion seems too irregular in many places.—F. W. T.].

⁸ Read perhaps *guṇa-rahitō* [or *guṇa-gaṇa*, since *guṇatva* is found only in *guṇas*?—F. W. T.].

⁹ The metre is wrong here.

¹⁰ For the sake of the metre, *yō* may have to be inserted here.

¹¹ The second half of the *ō* of *no* is very faintly seen.

¹² The correct Sandhi *varman=ēti* is precluded by the metre.

¹³ Read *Vijayati* on account of the metre.

¹⁴ Cancel the Visarga.

¹⁵ Cancel the Visarga.

2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

ii h.

14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

iii h.

26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

iii a.

20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

iv a.

34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

$i\tau' b.$ [illegible]

v! a.

48
 50
 52

48
 50
 52

i' b.

54

Third Plate; Second Side.

- 26 **yamēruḥ** pratāpavān [1*] samasta-ripu-chakrāṇām-bhōtt-āchintya-pa-
 27 **rākramah** || [14*] Samasta-dharaṇīpāla-kirīṭ-āṇkita-śāsanah [1*] sa jīyāt-shi(kshi)-
 28 tipāl-ēndrō **Vikramāditya**-bhūpatiḥ || [15*] **Vikramāditya**-bhūpasya sū-
 29 [n]uḥ parama-vīryavān [1*] dōr-ddaṇḍ-ōddhṛita-sṛisṭ-ārīr=¹**Vijayāditya**-
 30 nāma-dhṛikḥ² || [16*] Pañchāṅga-mantra-nipuṇaḥsh-³śhaḍguṇō sakta-chinta-
 31 kaḥ [1*] nay-ōpayukta-sachivaḥ **Prabhumērur**-mmahā-yaśāḥ || [17*]
 32 Tasya putrēṇa mahatā **Vikramādityava**[r]mmaṇā [1*] prasādita-

Fourth Plate; First Side.

- 33 Girittreṇa dhvasta-duḥkhēna dhimatā || 18*] Api cha⁴ ||*] **Nandō** nāma mahā-sa-
 34 tvō(ttvō) nṛipa-rāṭ=⁵bhuja-vikramah [1*] prādāt=⁶grāman=dvij-ēndrāṇām **Vi**-
 35 **prapīṭh**-ākhyā-nāmakamḥ⁶ || [19*] Tasya prādāt=sa ratshā(kshā)n-ta pīttrō vijñā-
 * 36 [pya] saḥ⁷ prabhuh [1*] **Vijayāditya**-sūnus=sō⁸ **Vikramādityaśrātaḥ**⁹ || 20*]
 37 **Ki**(kī)ḍṛig-vidhēbhyō ratshā(kshā)n-dattavān=iti chōt(d-) Brahm-ōva patm(dm)-āspa-
 38 dēbhyō Nārāyaṇa iva bhṛita-sach-chakrēbhyahś=¹⁰Śiva iva sita-bhūti-
 39 priyēbhyu[h*] Kumāra iva Śiv-āṇk-āśrayēbhyah(bhyō) vēda-tray-ādhyā-

Fourth Plate; Second Side.

- 40 yana-mākharā-mukhēbhyahś=¹⁰sushṭhu-kṛit-ānushṭhāna-Paramēshṭhi-
 41 charitēbhyahś=¹⁰traividya-vṛiddhēbhyahś=¹⁰samasta-śāstra-pā-
 42 ragēbhyah(bhyō) brahmādēy-ānusantānēbhyah(bhyō) dharmma-vi[d*]bhyō
 43 [v]ichehchinna-sōmapīṭhēbhyah ||*] **Paraśurāmēśvara**-bhaṭṭāra-
 44 ka-var-āvāpti-nimittād=**Vijayāditya**-sūnu[r*]=**Vvikramāditya**-
 45 s-ava-pitu[r*]-nniyōgād=**Viprapīṭh**-ākhyā-nivāsinān=dvi-
 46 j-ēndrāṇam samasta-[pa]rihāra-samanvitām ratshā(kshā)n=datta-

Fifth Plate; First Side.

- 47 vān || Sa[r*]vvāms=tu pṛithivīpālān=bhāvīnāḥ prā[r*]tthaya-
 48 ty-ayam [1*] **Prabhumērōs**=suta[h*] śrīmān=ari-marddama-karma-kṛita¹¹ || [21*]
 49 Yē tu ratshā(kshā)m=imām=pānti vipr-ēndrēshu sama[r*]ppitām [1*] tō-
 50 [sh]ām=pāda-yugā mūnni(rdhni)¹² tiśṭhantu mama sa[r*]vvadā || [22*] Śiva-bhaṭṭā-
 51 raka-sūnōś=Śivatamasy-ēyam kṛitih ||*] Svasti gō-brā-
 52 hmaṇēbhyah(bhyō) namaḥ || Iyam=prasasti[h] Parahit-āchā-
 53 riṇā likhitam[h](tā) || A[yu]nuru=¹³kkāḍi nellu[m] pat-

¹ Read *-driṭ-ārīr*. [Read *ṛṣ*?—F. W. T.]² Cancel the Visarga.³ These two words are entered below the line, and the place at which they have to be inserted is marked by a cross or caret (*kūkapada*); cf. Sir Aurel Stein's Translation of the *Rājatarāṅgī*, IV, 117 and note.⁴ Read *-rāḍ*.⁵ Read *prādāt*.⁶ Cancel the Visarga.⁷ The syllable *sa* is entered below the line; read perhaps *sat-prabhuh*.⁸ Read perhaps *sūnur=gyō*.⁹ Read perhaps *itya-citrutah*.¹⁰ Cancel the Visarga.¹¹ Read *-kṛit*.¹² After this word the syllable *ka* is written below the line.¹³ Read *ainnūgu*.

Fifth Plate ; Second Side.

54 tu poṇṇum idiṇ puravu [||*]

TRANSLATION.

(Line 1.) Obeisance to Śiva ! Hail !

[Verses 1-7 are addressed to Śiva.]

(Line 14.) Obeisance to Śiva ! Hail ! Prosperity !

[Verse 8 is again addressed to Śiva.]

(Verse 9.) (There was) a powerful lord of demons (*Dānava*), **Bali** by name, the son of **Virūchana**. He presented at an excellent sacrifice the earth to **Kṛishṇa** of immeasurable lustre.¹

(Verse 10.) In his lineage was born the best of kings, called **Nandivarman**, whose great power was praised.

(Verse 11.) Victorious is that **Nandivarman**, whose pair of feet was kissed by the diadems, (set) with jewels, of princes. Through him, who drove away (the sins of) the **Kali** (age), the earth is now (!) provided with a just king.

(Verse 12.) His son (was) a great hero, illuminating (the earth) as far as the coast (of the ocean), called **Vijayāditya** by name, the best of just rulers.

(Verse 13.) His (son) was the long-armed king **Malla-dēva**, the ornament of the **Bāṇa** race (and) the lord of the whole earth.

(Verse 14.) To him was born the powerful great hero **Jayamēru**, the breaker of the circle of all enemies, (and) whose valour was inconceivable.

(Verse 15.) Let that king **Vikramāditya** be victorious, the lord of princes, whose orders were marked (*i.e.* bowed to) by the diadems of all rulers of the earth !

(Verse 16.) King **Vikramāditya** had a very brave son, who bore the name **Vijayāditya**, (and) who uprooted proud enemies by (his) strong arm.

(Verse 17.) The renowned **Prabhumēru** knew the spell of five members² ; his thoughts were occupied with the six measures of politics ; (and) his ministers were employed with polity.

(Verse 18.) By his great wise son **Vikramādityavarman**, who propitiated **Girītra** (Śiva), (and) who removed distress, (this grant was made).

(Line 33.) Moreover :—

(Verse 19.) The noble ruler of princes, **Nanda** by name, whose arms were powerful, (had) presented to chiefs of **Brāhmaṇas** the village called **Viprapīṭha** by name.

(Verse 20.) But **Vijayāditya's** son, that virtuous lord who was celebrated (by the name of) **Vikramāditya**, granted a confirmation (of the former grant) to this (village), after having submitted (this matter) to (his) father.

(Line 37.) If (you ask) to what kind (of people) he granted the confirmation :—to those who were abodes of prosperity (*padmā*), as **Brahmā** dwells on a lotus-flower (*padma*) ; who supported a circle (*chakra*) of virtuous men, as **Nārāyaṇa** (**Vishṇu**) holds an excellent discus (*chakra*) ; who were beloved by bright welfare (*bhātī*), as **Śiva** is fond of white ashes (*bhūtī*) ; who resided near (the temple of) **Śiva**, as **Kumāra** rests on **Śiva's** lap ; whose mouths resounded with the recital of the three **Vēdas** ; who practised in a suitable manner the conduct of

¹ Cf. verso 3 of the Udayēndiram plates, above, Vol. III, p. 78.

² *Viz.* the five syllables *namaḥ-Śivāya*, “obeisance to Śiva !” Cf. ll. 1, 14. [*Pañcāṅga-mantra* is ‘counsel (consisting) of five subdivisions’ ; see *Monier Williams s.v. aṅga*.—H. K. S.]

Paramēśhthin (Brahmā); who had advanced in (the study of) the three Vēdas; who had mastered all sciences; who (possessed) a series of gifts to Brāhmaṇas; who knew the (sacred) law; (and) whose draughts of Sōma were uninterrupted.

(Line 43.) Because he had obtained a boon from the god Paraśurāmēśvara, Vijayāditya's son Vikramāditya granted, at the direction of his father, the confirmation, accompanied by all exemptions (*parihāra*), to the chiefs of Brāhmaṇas residing in (the village) called Viprapīṭha.

(Verse 21.) But the destroyer of enemies, that glorious son of Prabhumēru, requests all future rulers of the earth:—

(Verse 22.) "Let there rest for ever on my head the pairs of feet of those (kings) who protect this confirmation granted to chiefs of Brāhmaṇas!"

(Line 50.) This is the composition of Śivatama, son of Śiva-bhaṭṭāraka. Hail! To cows and Brāhmaṇas obeisance! This eulogy (*praśasti*) was written by Parahit-āchāri.¹

(Line 53.) The revenue assessment² of this (village amounted to) five hundred *kāḍṛ*³ (of) paddy and ten (*kaḷaṅḡu* of) gold.

No. 2.—TUMBAGI INSCRIPTION OF THE REIGN OF SATYASRAYA: SAKA 926.

BY LIONEL D. BARNETT.

Tumbagi, or, as the name was anciently spelt, **Tumbige**, is a village lying in lat. 16° 34' and long. 76° 20', in the Muddebihāḷ *tāluka* of Bijāpūr District, and formerly was included in the Pagalatti Three-hundred. The name is given as "Toombgee" on the Indian Atlas sheet 57 and as "Tumbgi" on the Bombay Survey sheet 350. It contains a monastery known as "Polayya's Maṭh," at the well of which there is (or was) a stone inscribed with the present record. A bad copy was made by Elliot's pandit, and appears in Vol. I, fol. 17a. of the Elliot Collection (Royal Asiatic Society's copy). I now edit the text from good ink-impressions prepared for the late Dr. Fleet, which are now in the British Museum.⁴—The stone is a long narrow block, with an upper compartment in front containing **sculptures**, viz. in the centre a *linga* on a stand, with an upright figure of a votary facing it on the proper right of it, and still further to the right a cow with sucking calf. Underneath this is the inscribed area, which seems to include three faces of the slab. The first face, containing ll. 1-17, is about 1 ft. 1 in. wide and 3 ft. high; the second, containing ll. 18-40, is about 10 in. wide and 3 ft. 7 in. high; the third, containing ll. 41—end, is about 3 ft. 8½ in. high and 6 in. wide, except at the bottom, where it runs out towards the right to a width of 10¾ in., enclosing the last two lines.—The **character** is fair Kanarese, somewhat inclined to angularity, with letters varying from 1 in. to 1½ in. in height. Its whole tendency is towards the later type, rather than the archaic. The cursive *v* is found only in the ligature *veva* (ll. 51, 58).—The **language** is Old Kanarese, except for the concluding Sanskrit verses. We may note the sporadic change of *m* to *v* in *-āchchhādanavāṇ* (l. 32) and *mahājanavuv* (ll. 43-4), and the conditionals *ādaḍe* (l. 37) and *appaḍe* (l. 45), which all shew a tendency towards the medieval dialect.

The **record** opens (ll. 1-8) by referring itself to the reign of **Akaḷaṅka** *acharita* **Iriva-bedāṅga Satyāśraya** (*Dynast. Kanar. Distr.*, p. 432), while his officer **Seṭṭi Brahmayya** was administering Tumbagi (ll. 8-15), and registers gifts to local religious foundations by the latter and a lady named **Āyachakabbe**, with rules for their management (ll. 15 ff.).

¹ *āchāri*, 'an artisan,' is a Tamil form of *āchārya*.

² *Purava* occurs also in *South-Ind. Inscr.*, Vol. II, p. 386, text line 99, and above, Vol. IV, p. 224, text line 19. For its meaning see the Madras Epigraphical Report for 1920, p. 96.

³ The same measure is mentioned in *South-Ind. Inscr.*, Vol. I, pp. 117, 140.

⁴ A notice of the inscription has been given by Dr. Fleet above, Vol. XII, p. 306.

The **date** is specified on ll. 11-15 as Śaka 926 (expired), Krōdhi; Āshāḍha *amāvāsya*; an eclipse of the sun. This is quite regular. The Southern cycle is used, and according to the *Sūrya-siddhānta* (true system) the *tithi* quoted was connected with **Thursday, 20 July, A.D. 1004**, ending 3 h. 33 m. after mean sunrise (for Ujjain). On that day there was an eclipse of the sun at 3 h. 18 m. after sunrise by Lankā time. Mr. R. Sewell, who has kindly examined this date at my request, remarks that by the true system of the *Ārya-siddhānta* the result is the same, but that by the mean system of the *Ārya-siddhānta* the *tithi* was connected with the previous Wednesday, 19 July.

The **place-names** mentioned are: the **Pagalatṭi Three-hundred** (l. 10); the **Tumbigo Agrahāra** (l. 11); and **Kalkere** (ll. 23-4). On Pagalatṭi I may refer to the remarks of Dr. Fleet above, Vol. XII, p. 306 ff., where he identifies it with the district variously called Hagaritige, Hagarittage, or Hagaratage and connected with the village formerly designated Hagaritige, Hagulittage, or Hagarittage, and now known as Hagarattagi, Hagaritige, Hagarittige, or Hagarittigi, in the Shōrāpūr *tāluka* of Gulbarga District in the Nizam's Territories. Kalkere cannot be identified with certainty; there are several places of the name. ²

TEXT.¹

- 1 Svasti samasta-bhuvan-āśra-
- 2 ya Śri-Pri(pri)thvi-vallabha
- 3 mahārājādhirāja para-
- 4 mēśvara paramabhaṭṭārakaṁ
- 5 Satyāśraya-kuḷa-tiḷaka-
- 6 n-Akaḷamkacharitan-Iṇiva-
- 7 beḍaṁgaṁ śrīmat Satyā-
- 8 śraya-dēvara pāda-padm-ō-
- 9 pajivi Seṭṭi Brahmayyaṁ
- 10 Pagalatṭi 300raṇa baḷi-
- 11 ya Tumbige-agrahāra Sa-
- 12 kha-varisha² 926neya Krō-
- 13 dhi-samvatsarad=Āshāḍa(ḍha)d=amā-
- 14 vāsyeya[in]duve sūryya-gra[ha*]-
- 15 ṇadandu Seṭṭi Brahmayyaṁ Bra-
- 16 h[m]ōśva(śva)ra-dēvarggo biṭṭa ke-
- 17 y=matta 200 ada * * *
- 18 parekāra-sūḷe-
- 19 yargge koṭṭa key=ma-
- 20 tta 30 maṭa(ṭha)kke koṭṭa ke-
- 21 y=matta 50 dōvālaya-
- 22 nimittam koṭṭa ke-
- 23 y=matta 120 [*] Kalke-
- 24 reya Gonnayyana
- 25 magal-Āyohakabbe ta-
- 26 mma mānyad=olage ma-
- 27 ṭa(ṭha)kke koṭṭa key=matta
- 28 50 antu maṭa(ṭha)kke ma-
- 29 tta 100 [*] Inn=ṣṭhiya pha-
- 30 laḍalu brahmacharyya-

¹ From the ink-impressions.

² Read Śaka-varsha.

- 31 m=ulla tapaśviya 5.
 32 rgge¹ aśan-āchchhādanavam
 33 naḍeyisuvar=alli-
 34 y=orvvar=pradhānar=appa-
 35 vargge uttamāgra[m*] na-
 36 ḍeyisuva[r*] brahmacha-
 37 ryy-ādi-lōpam-ādaḍe
 38 poḍa-vaḍisuvar=[u]-
 39 ttamar=appar=amt=appa-
 40 r=ī sthitiyo!-ī dharmmamam
 41 pratipāḷisuva-
 42 r=ūr-oḍeyarum
 43 mahājanavu-
 44 v=idan=upēkshi-
 45 sidar=appaḍe gu-
 46 ṇa-dōsham=ava-
 47 [ra]n-ōṅgum ||
 48 ūr-oḍeyara-
 49 l=akke mahāja-
 50 nadol=akke ā-
 51 van-orvvan=ī sthi-
 52 tiyo!=allade
 53 perat=ondu sthi-
 54 tiyo! kiḍi-
 55 suv-avam śvāna-
 56 gā(ga)rdabha-chāṇḍālam
 57 same(ma)ya-bāhiram [||*]
 58 Sarvvathā pāḷaniya-
 59 m tta(tu) tad-dōśas=tais=tu
 60 bhūmipai[h*] [i*] ya-
 61 sya yasya ya-
 62 dā bhūmi[s*]=tasya
 63 tasya tadā phalam [||] [1*]
 64 Sva-dattām para-da-
 65 [t]tā[m v]ā yō ha-
 66 rēta vasuṇḍhar[ām] [i*]
 67 shashṭhim varisha².sa-
 68 hasrāpi viśṭhā-
 69 [y]ām jāyatō krimiḥ [||* 2*]
 70 [Ma]ṅgaḷa mahā-śrī ||

TRANSLATION.

(Lines 1-9) **Seṭṭi Brahmaṃya**, who finds sustenance at the lotus-feet of—hail!—the refuge of the whole world, darling of Fortune and Earth, great Emperor, supreme Lord supreme Master, ornament of **Satyāśraya's** race, **Akaṣaṅkacharita** **Iṇvabedaṅga** **Satyāśraya-dēva** :—

(Lines 10-23) (*While governing*) the **Agrahāra** of **Tumbige**, forming part of the **Pagalatṭi** **Three-hundred**, during the last lunar day of **Āśāḍha** in the cyclic year **Krōdhi**,

¹ Read *ṣ tapasvīyargge*.² Read *shashṭir=varsha*.

the 926th (year) of the Śaka era, during an eclipse of the sun, **Seṭṭi Brahmayya** granted for the god Brahmāśvara a field, 200 *mattar*; . . . for the drummers and public women he granted a field, 30 *mattar*; for the monastery he granted a field, 50 *mattar*; for the benefit of the temple he granted a field, 120 *mattar*.

(Lines 23-29) **Āychakabbe**, daughter of **Gennayya** of **Kalkere**, granted for the monastery out of her own honorary estate a field, 50 *mattar*. Thus (there are) for the monastery 100 *mattar*.

(Lines 29-47) Likewise out of the revenues of this land they shall provide food and clothing for the 5 ascetics living in celibacy. In the case of any superiors of this place, if there should be committed a breach of celibacy or the like in conducting the highest offices, they shall expel (them).¹ The leading men shall be such. They shall preserve this pious foundation, under this constitution. If the mayors of the town and the burgesses should have neglected it, guilt shall accrue to them. Any person, whether of the mayors of the town or of the burgesses, who should violate this constitution or any other constitution, (will become) a dog, an ass, or a Chāṇḍāla, an outcast from society.

(Verses 1 and 2: Sanskrit formulæ.)

(Line 70) Happiness! great fortune!

NO. 3.—A NAGA FIGURE IN THE MATHURA MUSEUM.

By Y. R. GUPTA, B.A.

On page 18 of the Annual Progress Report of the Archæological Survey of India, Northern Circle, for the year 1908-1909 an inscribed pedestal from Rāl (No. 45) is mentioned. The upper part of the image must have been found since I examined the sculpture at Mathura. It represents a Nāga standing between two Nāgīs. The height of the sculpture is 4' 2". The inscription measures about 2 ft. in breadth and 7 in. in height.

The image came from a mound near the village of Bhadāl about six miles from Mathura. From local enquiries it appeared that people from the neighbouring villages used to visit the spot and vows were made to the deities by barren women. When they got sons, they resorted to the place for tonsuring their hair.

The Nāga in the centre has a canopy of seven hoods with forked tongues, as is usually the case with the other Nāga images of Mathura, and is similarly dressed. The threefold triangular necklace is a little damaged on the breast. We can see the bracelet on the right wrist, and a similar one on the left is hidden by the upper garment. The position of the hands is similar to that of the Nāga figure from Mathura city of the Kushāṇa year 52 (A. S. R. for 1908-9, Plate LIV). The left hand holds a small vessel; and a lotus bud is visible in the right. The Nāgīs are dressed in garments of the same stuff as the Nāga and have the same appurtenances in their hands. Beneath the feet of the deities were short inscriptions, now much defaced, which probably contained their names. The vestiges that remain favour this view.

On the pedestal are five males and five females and also two boys with folded hands. They are worshippers. The right hand of the man to the extreme proper right is gone. The male to the left and the female to the extreme proper left have their hands folded, the others holding lotus stalks in their right hands. On the lower part of the pedestal is an interesting inscription

¹ [*Uttamāgrah* means 'sumptuous meal'; see *South Indian Inscriptions*, Vol. III, Part III, p. 266, footnote 1. (The meaning is: One of the superior members of these will be provided with a sumptuous meal'.—H. K. S.)]



From a photograph kindly supplied by Mr. H. Hargreaves

SCALE ONE-SIXTH

Mathura Naga Image inscription : the year 8 of Kanishka.



of three lines, of which the second and third are much damaged, making the decipherment of a part of the third line impossible.

Several images of Nāga deities, both inscribed and without inscriptions, have been found in Mathura. Of these the following are dated :—

Image of Dadhikarna, of Samvat 26 va 3 di 5 (*Ind. Ant.*, Vol. XXXIII, p. 102, and *Ep. Ind.*, Vol. I, pp. 380 f. and 390, No. XVIII, and Dr. Vogel's paper in the *Arch. Survey Report* for 1908-9, pp. 159 ff.).

Nāga image of the year 40 of Huvishka, in the second month of winter, the 23rd day (Dr. Vogel's catalogue of the Arch. Museum at Mathura, No. C 13, pp. 88-9; *A. S. R.* for 1908-9, p. 161).

Nāga image of sa 52 va 3 di 25 (Dr. Vogel's catalogue of the Arch. Museum at Mathura, p. 91), *Arch. Survey Report* for 1908-9, p. 161.

Besides, there is a fragment which Dr. Vogel assigned to the 3rd century of the Christian era (Dr. Vogel's catalogue of the Arch. Museum at Mathura, p. 90; *A. S. R.* for 1908-9, p. 162).

The image described in this note dates from the year 8 of the Kushāna era and is the earliest dated Nāga one at Mathura.

The palaeography does not call for many remarks. The general characteristics are dealt with in Dr. Bühler's *Indian Palaeography*, edited by Dr. J. F. Fleet, p. 41. The peculiarities observable in the present inscription are these :—(1) The *kha* is triangular below, but its hook is large; (2) the upper horizontal stroke of *ra* is turned into a curve, while the lower is split up into lines; (3) *ta* in the 3rd line shows a loop; (4) the lower part of *da* is more slanting than in all examples given by Dr. Bühler; (5) *va* is rounded on the left; (6) the left limb of *sa* is never turned into a loop.

TEXT.¹

- L. 1 Mahārājasya rāj-[ā]tirājasya [Shāhi] Kāpikkhasya Sa² 8 gri 4 di 5
 L. 2 as[yā]m p[ūrvv]āy[ā]m bhagavataḥ [Bhūmi-nāga]sya (1) pukshiripi ār[ā]mā
 cha pra[ti]-
 L. 3 [shthāpitō . . . putras[y]a . . . ṭurasya niya[mada]kisiya [sarvva]sat[v]a² hi(hita)-su
 (sukhārtham) (2)

REMARKS.

(1) There can be little doubt about the reading *Svāmi-nāgasya*. I have examined the stone in all lights and shades. (2) *Hi* and *su* at the end of the third line stand for *hita-sukhārtham*. This abbreviation is due to want of space.

TRANSLATION.

In the year 8 of the great king, the king of kings the Shāhi Kāpikkha in the fourth (month of) summer, on the 5th day on that (date specified as) above, a tank and a garden of the holy Bhūmi naga was founded °tura, son of for the welfare and happiness of all sentient beings.

The Prākṛitized form *Kāpikkha* deserves notice. The form with the long *ā* in the first syllable has already been observed in two inscriptions, namely those on the statue of Kānishka

¹ From the original.

² It appears that the engraver first cut *sya*, but afterwards found out his mistake and deeply engraved only *sa*.

himself and the Bodhisattva statue of the Kushāṇa year 3, in the Sārnāth Museum. Bhāmināga is first met with in this record.

No. 4.—A VAKATAKA INSCRIPTION FROM GANJ.

By V. S. SUKTHANKAR, PH.D.

This inscription, which is now brought to notice for the first time, was discovered by my friend Babu Rakhaladas Banerji, Superintendent, Archaeological Survey of India, Western Circle, in 1919, during one of his tours of inspection in Central India. The excellent estampages from which the accompanying blocks have been prepared were made under his direct supervision, and very kindly placed by him at my disposal for publication.

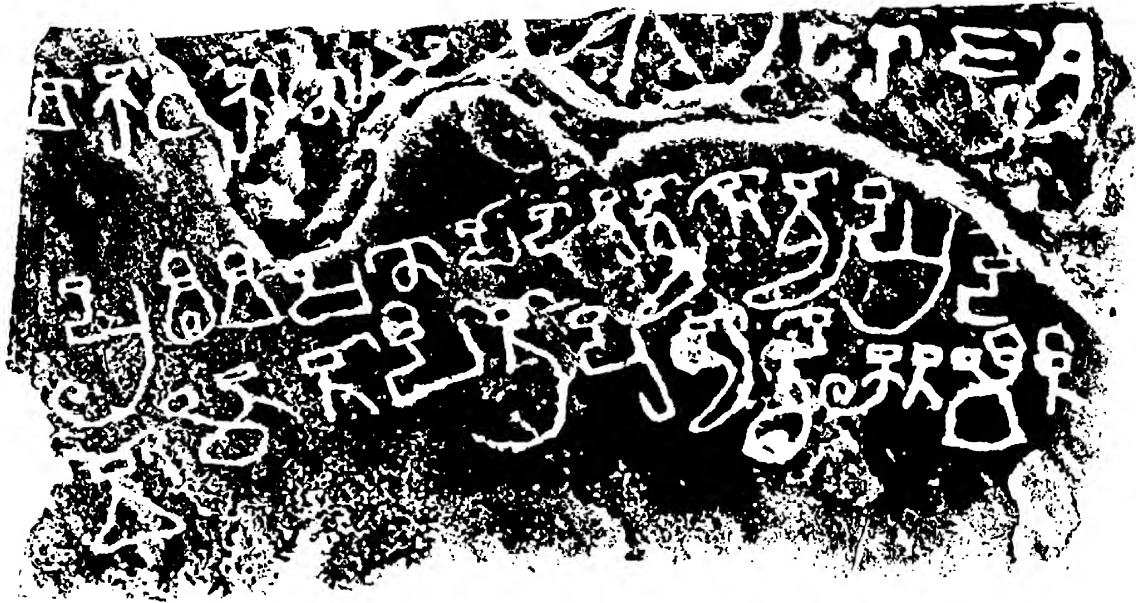
The inscription, Mr. Banerji tells me, is engraved on a detached slab of stone which he found lying at the bottom of a *dongā*, adjoining a hill called Maluhā-ṭongi near Ganj in the Ajayagaḍh (Ajaiagarh) State in Bundelkhand. Close by is a ruined stone structure, probably a dam to hold the waters of the stream passing along the *dongā*. The find-place of the record is not far removed from the ruined city of Kuṭhārā, where Cunningham discovered in 1883-84 the Nāchanē-ki-talāi inscription, which was first brought to notice by him, in 1885, in *Archæological Survey of India*, Vol. XXI, pp. 97 f., and re-edited by Fleet in *Gupta Inscriptions*, pp. 233 ff. and Pl. xxxiii B. The Ganj inscription, like the one discovered by Cunningham, is one of the oldest records of the Vākāṭaka dynasty, and as such is worthy of being carefully preserved.

From the subjoined transcript it will be seen that the text of our inscription is practically identical with that of the Nāchanē-ki-talāi record of the reign of Mahārāja Prithivishēṇa, edited by Fleet in *Gupta Inscriptions*; it differs from the latter only in the length and the number of lines, and in the spelling of a couple of words. But our inscription is in a much better state of preservation than that edited by Fleet; at all events the stone has yielded an impression far superior to the one from which the block accompanying Fleet's article was prepared. Consequently we can study the forms of the letters in the subjoined facsimile much better than in that of the Nāchanē-ki-talāi version. Moreover, the writing of this inscription being perfectly distinct, we can give a transcript which is more reliable, and which at the same time discloses certain minor inaccuracies in Fleet's transcript, errors which even then could have been avoided by a more patient study of the available material.

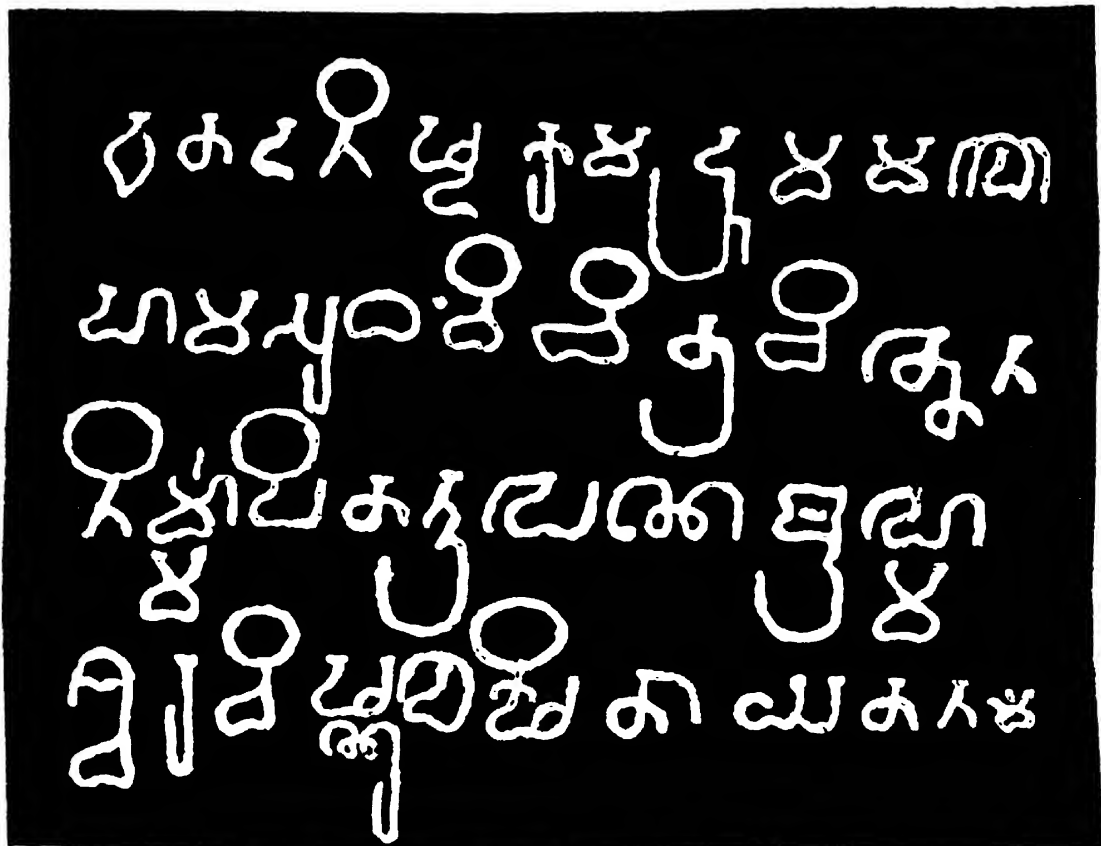
The writing covers a space about 25" broad by 12" high. In the centre of the first line of the inscription there is a sculpture of a wheel, of which only a part is visible in the facsimile. The average size of such letters as *m*, *p* and *v* is about 2".—The characters belong to the 'southern' variety of alphabets, of which the distinguishing features, in our inscription, are the hooks at the lower ends of the verticals of *k* and *r*. In particular, we may say that the letters are a specimen of the Central Indian alphabet of the period, which on account of the peculiar 'box-headed' tops of the letters is known as the 'box-headed' sub-variety of the southern alphabet.¹ In our specimen the boxes are very conspicuous, and uniformly hollow. The letters are unequal in size and uncouth in appearance. It may be added that they betray a conscious effort to substitute angles for curves in the configuration of letters. The letters *t* and *n* are sharply distinguished from each other: the latter has always a knot at its lower end.—The language is Sanskrit, and the inscription is in prose.—As regards the orthography the only point calling for remark is the phonetic doubling of the *d* of *dh*, in °*d-ā(m)nuddhyātō* (l. 2), before *y*, and of the *t* of *th*, before *r*, in *punyā-rtthē* (l. 3).

¹ See Bühler, *Indische Palæographie*, p. 62.

1. A Vakataka Inscription from Ganj.



2. Mandagappattu Inscription of Vichitrachitta.



The inscription, which is a record of the reign of *Mahārāja Prithivishōṇa* [I.] of the *Vākātaka* family, states merely that a feudatory of his, *Vyāghradēva* by name, had made something or other for the sake of the religious merit of his parents. The exact nature of this act of piety has been left unspecified, just as in the other version discovered by Cunningham. The silence of these records on the point leads us to infer that the slabs on which the inscriptions are inscribed must have been built into that the making of which they were intended to record.

Our information regarding the *Vākātaka* dynasty is unfortunately very scrappy. All the important events in its history known to us have been succinctly summarized by Kielhorn¹ in his article on the *Bālāghat* plates of *Prithivishōṇa* II.; we can even now add nothing of consequence to what has been said there. We do not possess exact dates for any of the kings of this family, nor can we form any clear idea of the extent of the country ruled over by them. Regarding *Prithivishōṇa* I. we know that he was the son of *Rudrasēna* I. and the great-grandson of *Pravarasēna* I., the latter being either the very first king or one of the early kings of this house. It should seem that the *Vākātaka* king at whose hands the 'lord of Kuntala' had suffered defeat, as recorded in the *Vākātaka* stone inscription at *Ajaṇṭā*,² was this same *Prithivishōṇa*. Beyond these few facts we know nothing of much consequence regarding the king referred to in our record.

About *Vyāghradēva*, the feudatory of *Prithivishōṇa*, we know still less. Indeed, *Vyāghra* appears as the name of chieftains in several well-known inscriptions;³ but it is not possible to identify our *Vyāghradēva* with any of them.

Bühler⁴ assigns the copper-plates of the *Vākātaka* *Pravarasēna* II., the grandson of *Prithivishōṇa* I., to the fifth or sixth century A.D.; it is not known to me on what grounds. I have examined the inscriptions of the *Vākātaka* dynasty and compared them with the allied inscriptions engraved during the time of the *Guptas*,⁵ of the kings of *Śarabhapura*,⁶ of *Tivara*,⁷ of *Kōsala* and of the early *Kadamba* kings,⁸ without being able to arrive at any definite conclusion regarding the age of the *Vākātaka* inscriptions. Bühler's date, however, appears to me to be far too early. My impression is that there can be no objection, on palaeographic grounds, to assigning this record of the *Vākātakas* to as late an epoch as the seventh century A.D. I conclude this short notice by drawing attention here to the remark of Kielhorn that the *Bālāghat* plate of *Prithivishōṇa* II., who was the son of the great-grandson of the *Prithivishōṇa* of our inscription, "may be assigned with probability to about the second half of the eighth century A.D."⁹

TEXT.¹⁰

- 1 ¹¹*Vākātakāṇā mahārāja-śrī*¹².
- 2 *Prithivishōṇa-pād-ā(m)nuddhyātō Vyāghradē-*
- 3 *vō mātāpitrō[h*]* ¹³*puny-ārthō* ¹⁴*kṛitam=iti* [||*]

¹ Above, Vol. IX, pp. 268 f.

² *Arch. Surv. West. Ind.*, Vol. IV, p. 124, verse 8.

³ Kielhorn's *List of Inscriptions of Northern India*, Nos. 270, 387 and 509.

⁴ *Indische Palaeographie*, pp. 62 f.

⁵ *Corpus Inscriptionum Indicarum*, Vol. I, Nos. 2-3.

⁶ *Gupta Inscriptions*, Nos. 40-41.

⁷ *Ibid.*, No. 81.

⁸ *Ind. Ant.*, Vol. VII, pp. 35-7.

⁹ Above, Vol. IX, p. 270.

¹⁰ From a set of estampages prepared and kindly lent to me by Mr. R. D. Banerji.

¹¹ Read *Vākātakānām*. Fleet in his transcript has wrongly spelt this word with the dental n in *Gupta Inscriptions*, Nos. 53-54.

¹² Read *śrī*.

¹³ Read *puny-ārthō*. Here also Fleet has wrongly transcribed the word, both as regards the dental n and the case-ending. In Cunningham's version the word is spelt exactly as here.

¹⁴ The construction is faulty. The verb should be in the active voice.

TRANSLATION.

Vyaghradēva, who meditates on the feet of the *Mahārāja* the illustrious **Prithivishēṇa**, (of the family) of the **Vākṣakas**, has made (this) for the sake of the religious merit of (his) parents.

No. 5.—MANDAGAPPATTU INSCRIPTION OF VICHITRA-CHITTA.

By T. A. GOPINATHA RAO, M.A., TRIVANDRAM.

The small village of Maṇḍagappattu is situated in the Villupuram *Taluka* of the South Arcot District and is about five miles south-west of Pērapai, a station on the main line of the South Indian Railway. In a small hill near Maṇḍagappattu is cut out a shrine, on the façade of which is engraved the inscription which is edited below. The shrine has at its back end three niches, which are dedicated to the gods Brahmā, Īśvara and Viṣṇu respectively. On the panels on either side of this shrine is carved a *dvāra-pālaka*; the figure on the right very much resembles those which are found in the rock-cut shrines attributable to the Pallava king Mahēndravarmān I. From this and other considerations based upon its architectural peculiarities Mons. G. Jouveau-Dubreuil has attributed its excavation to Mahēndravarmān I. A photograph of the front view of this rock-cut shrine is given by him in his *Pallava Antiquities*, Vol. I, Pl. XXVIII. The cave was visited by the staff of the office of the Madras Epigraphist, and the inscription was copied in 1905. Regarding this cave Mr. Venkayya wrote in his *Annual Report on Epigraphy* for that year thus :—"The cave at Daḷavāṇṇūr in the Tiṇḍivapam *Taluka* consists of a shrine and a *maṇḍapa* in front of it, thus resembling to a certain extent the upper cave at Trichinopoly, while that at Maṇḍagappattu (mentioned in Mr. Sewell's *List of Antiquities*, Vol. I, p. 209) is a smaller one, which looks as if it had been left unfinished There is only one inscription in the Maṇḍagappattu cave, which is so much damaged that the name of the king cannot be made out. To judge from what remains of it, we may say that it must also belong to the Pallava period. And, as we know that it was Mahēndravarmān I of that dynasty that excavated almost all the hitherto known monolithic caves in the Tamil country, we may not be altogether wrong, if we suppose that the one at Maṇḍagappattu also came into existence during his reign." Depending upon probability, Mr. Venkayya hazarded a guess which has now turned out to be quite correct. It is true that the shrine was excavated during the reign of Mahēndravarmān I; but no serious attempts were made by the Madras Government Epigraphists at deciphering this epigraph. The credit of having made out the name of the king belongs to the French Professor, Mons. G. Jouveau-Dubreuil, of Pondicherry. He has visited Maṇḍagappattu more than once to obtain eye-copies and mechanical impressions, as also to acquire any further knowledge by studying the inscription directly from the stone. His zeal and perseverance have been richly rewarded by his discovery of the name of the king in whose reign the shrine was excavated. At this stage he sent me the impression of the inscription and his eye-copy, so that I might complete the reading of the document, translate and annotate it. When my notes, translation, etc., went to him, it had become impossible for him to edit the inscription himself; for he had to proceed to Cochin China on military duty. He therefore sent me a good photograph of a very carefully prepared eye-copy and asked me to edit the epigraph as early as possible. From the mechanical impression kindly lent to me by Mons. Jouveau-Dubreuil and the photograph of the eye-copy prepared jointly by me and that gentleman I edit this important inscription below.

The record consists of four lines of writing in Grantha characters of the first half of the 7th century A.D., and is a Sanskrit verse in the *Gīti* metre. As has been remarked by Messrs. Venkayya and Jouveau-Dubreuil, the inscription is somewhat badly damaged, and it is only with difficulty that one can read it successfully; but one need not on this score imagine that the

reading is fanciful. The inscription states that the shrine was caused to be made by the king Vichitra-chitta for the accommodation of the three deities *Brahmā*, *Īśvara* and *Vishṇu*, without using in its construction bricks, timber, metal or mortar. This short record is of importance in more ways than one. The most important information conveyed by it is that before the time of Vichitra-chitta bricks, timber, metal and mortar were the common temple building materials. Evidently the basement and walls of the buildings were of brick work, plastered with chunam, and the superstructures were composed of wood work held in position by the use of metallic nails and bands. This, in fact, is even to this day the mode of construction of temples on the Malabar Coast. It is difficult to find a single temple in Southern India which belongs to a date prior to the 7th century of the Christian Era. One would naturally be inclined, therefore, to surmise that temple building was never in vogue before that century. But immediately after this period we see a number of temples which have sprung into existence, and this also seems to lend weight to the surmise that no temples were built before the time of Mahēndravarman I in Southern India. The statement made in this inscription that Mahēndravarman did not employ bricks, timber, metals and mortar clearly warrants us in drawing the conclusion that the temples built before his time were all of such easily perishable materials as bricks, etc., that they were all ruined in course of time, and that this is the first rock-cut shrine of his. This is clear from the special mention of *anishṭaka*, etc., in the case of this shrine. It is impossible for a number of temples to have come suddenly into existence from the beginning of the 7th century, unless the building of temples had been practised long before.

We know from the inscriptions of the cave temple at Pallāvaram that Vichitra-chitta was one of the *birudas* of Mahēndravarman I (see Pl. XXI in the *Pallava Antiquities* of Mons. G. Jouveau-Dubrenil, wherein the name Vichitra-chitta is clearly legible; *vide* also for the *biruda* Vichitra-chitta, p 74, para. 14, of *Ep. An. Rep.* for 1909). It is, therefore, patent that the shrine was caused to be excavated by Mahēndravarman I.

Again, the *biruda* Vichitra-chitta means 'the curious or inventive-minded one.' One can easily concede to the king Mahēndravarman the title 'inventive-minded,' in so far as he avoided bricks, etc., commonly used by all in the construction of their buildings, and devised quite a new path, namely the cutting out of rock-temples, which needed neither bricks, timber nor mortar. His country extended far north of the river Kṛishṇā, where he must necessarily have seen some of the earlier rock-cut temples and so have introduced into Southern India the new style of cutting temples in rock. That he was the first to introduce into Southern India the method of excavating temples in the solid rock is certain; for we do not find even a single rock-cut shrine which belongs to a time before the reign of Mahēndravarman. We know of no less than fifty rock-cut shrines in Southern India, not one of which is earlier than the time of this Pallava king. In fact, the art of cutting temples out of rock was contemporaneous with the Pallava dynasty and disappeared after them.¹

The *birudas* of Mahēndravarman are not mere boasts; each of them has a meaning which is based upon some act done by him. We have seen that the *biruda* Vichitra-chitta is assumed by him for his invention of a new method of raising temples. Similarly, the *biruda* Matta-vilāsa is, in fact, indeed due to his having composed the pleasant little burlesque the *Mattavilāsa-prahasana*, in which he ridicules an actual *matta* or madman, a drunken Kāpālīka and meat-eating Baudha Bhikshu.² Mention is made of this burlesque in his inscription found in Māmaṇḍūr;

¹ [See *South-Indian Images*, Introduction, pp. 1 f.—H. K. S.]

² The following extracts from this work will show that it was the composition of Mahēndravarman:

सूचार्:—भवति ! श्रुयताम् । पञ्चवक्त्रधरश्चिन्मखलकुलपर्वतस्य सर्वमयविजितसमस्तमानसखलस्य चार्थकस्य-
समपराक्रमविभ्यः श्रीमहिमानुपपदानविभूतिपरिभूतराजराजस्य श्रीशिवविष्णुब्रह्मणः पुत्रः शत्रुघ्नदुर्गनिरुद्धपरः
परहितपरतन्त्रतया महाभूतसधर्मा महाराजः श्रीमहेन्द्रविक्रमवर्मा नाम ।

The *birudas* Avani-bhājana, Guṇa-bhara, Matta-vilāsa and Śatru-malla are also introduced ingeniously in the play; these, we know, are the *birudas* of Mahēndravarman I,

the portion where it occurs is somewhat damaged, but the name of the work is not broken; the passage runs thus: *Muttavilāsādi-padam-prahasana-ottamam*¹ . . . and in the other fragments of the inscription we see that mention is made of poets like Vyāsa and Vālmiki, as also of *tālas*, etc., of music. Thus then each *biruda* of Mahēndravarman appears to have been bestowed on him or assumed by him for some ostensible reason. The *biruda* Saṅkīrpa-jāti² of this king is rather curious; it means 'of mixed caste.' Perhaps the parents of Mahēndravarman were of different castes. The significance of the other *birudas* will become patent as further researches are made.

It is interesting to note that at the time of Mahēndravarman the three deities Brahmā, Śiva and Viṣṇu were enshrined together in the same temple in adjacent niches. Such a group consisting of Brahmā, Viṣṇu and Śiva is called Hari-Hara-Pitāmaha or Dattātrēya. (See my *Elements of Hindu Iconography*, Vol. I, pp. 251-256, as also Pl. LXXII, fig. 1 of the same volume.) At Mahābalipuram also there exists a Trimūrti cave; but, strangely enough, the cell which is supposed to have been dedicated to Brahmā is occupied by a figure which has only one face. The figure of Brahmā ought, according to the *āgamas*, to be always shaped with four faces, and in practice also we find that three faces are always shown in sculpture, the fourth being supposed to be at the back of the figure. In spite of the fact that the figure in the Mahābalipuram rock-cut shrine has only one face Dr. Vogel in his *Iconographic Notes on the Seven Pagodas*, contributed to the Director-General of Archaeology's Annual Report for 1910-11, identifies the figure with Brahmā (see page 58). Prof. Jouveau-Dubreuil has sent me a note containing his own explanation concerning this image for publication here, which I reproduce below. "The Trimūrti cave at Mahābalipuram is formed of three cells; the one on the right contains an image of Viṣṇu, and the middle one an image of Śiva. It is, therefore, but natural to suppose that the left cell contains an image of Brahmā. I was the first author to remark (vide *Archéologie du Sud de l'Inde*, Vol. II, Pl. XVIII B) that the god in the left cell has only one head and so could not be identified with Brahmā. I have thought fit to affirm that this unknown god is Subrahmanya, who is represented also on the ground-floor of the Dharmarāja Ratha³ (*Archéologie du Sud de l'Inde*, Vol. II, Pl. XVIII B). However, the problem why the trinity Subrahmanya, Śiva and Viṣṇu is found in place of the usual trinity Brahmā, Viṣṇu and Śiva has remained till now unsolved. I believe I shall be able to explain why Subrahmanya is substituted for Brahmā in the group of the trinity at Mahābalipuram. Mr. T. A. Gopinatha Rao says in his *Elements of Hindu Iconography*, Vol. II, Part II, page 439, 'Brahma-sāstā: This is the aspect of Subrahmanya in which he put down the pride of Brahmā by exposing his ignorance of the Vēdas. He should be represented with a single face and four arms; he should have only two eyes. In the back hands there should be the *akṣhamālā* and the *kamaṇḍalu*,⁴ and the front hands should be held in the *varada* and *abhaya* poses. The colour of Brahma-sāstā should be the red of the lotus flower.' If we note that the image of Subrahmanya in the Trimūrti cave wears on its breast a double chaplet of *candraśha* beads, and that at the entrance to the sanctuary there are two personages dressed as Saunyasins and having pointed beards, we shall conclude that the sculptors of Mahābalipuram have put Subrahmanya in the place of

¹ This fact was also discovered by Prof. Jouveau-Dubreuil: see his *Pallavas*, p. 38.

² [*Saṅkīrpa-jāti* is the name of a variety of musical time. Perhaps Mahēndravarman I held this *biruda* as an inventor of this method of keeping musical time.—H. K. S.]

³ Behind the rock bearing the Trimūrti shrine are executed the figures of a peacock, an elephant and a monkey, carved in half relief. We know that the peacock is the characteristic vehicle (*rāhana*) of Subrahmanya. The elephant is generally associated with the temple of Sāstā, and is here perhaps intended to show that the image is that of Brahma-sāstā. [Temples of Traipurushadēva are found dedicated to Sun, Śiva and Viṣṇu. Why should not the Brahma-sāstā figure represent the Sun?—H. K. S.]

⁴ Dr. Vogel takes the objects in the back hands as a flower and a ring, neither of which is right. The hands carry only a *kamaṇḍalu* and an *akṣhamālā*, as required by the *āgamas*.

Brahmā because they have placed there Brahma-śāstā, a deity superior to Brahmā in his knowledge of the Vēdas. I think fit to draw attention to the existence of the trinity consisting of Subrahmanya, Śiva and Viṣṇu and also to explain it with the help of the above-mentioned excellent work of M. R. Ry. T. A. Gopinatha Rao."¹

TEXT.²

- 1 एतदनिष्टकमद्वयम[मलो]-
- 2 इमसुधं[विचित्रचि]त्तेन [१*]
- 3 निर्मापितमपे[ण] ब्रह्मे-
- 4 श्रविष्णुल[क्षि]तायतनम् [१*]

TRANSLATION.

This brickless, timberless, metalless and mortarless temple, which is a mansion for (the Gods) Brahmā, Īśvara and Viṣṇu, was caused to be created by the king Vichitra-chitta.

No. 6.—THE FIRST ARYA-SIDDHANTA.

MEAN SYSTEM.

(A continuation of the author's "Indian Chronography.")

BY ROBERT SEWELL, I.C.S. (RETIRED).

303. It has long been known that in earlier years the Pañchāṅg Brahmans in India framed their local almanacs on calculations made by the use of the mean, as opposed to the true or apparent, motions of the sun and moon. The change from the mean to the true systems of calculation was advocated by Śrīpathi (A.D. 1040), and the latter system may have been adopted in some places about that time; becoming more general from about A.D. 1100 onwards. India, however, is a very conservative country, and the late Dr. Fleet was of opinion that the mean system may have been adhered to, in some tracts at least, till a far later date.

304. With this opinion in mind I have prepared the Tables which follow, so as to cover the period of nine centuries from Āryabhaṭa's date, K.Y. 3600 (A.D. 499-500), to 4500 (A.D. 1399-1400). It would be well if all dates of inscriptions that have hitherto been set aside as irregular by epigraphists could be re-examined, seeing that the difference between the two systems of the *Ārya Siddhānta* constantly leads to differences in the computed positions of the sun and moon on the same civil day, and consequently to differences in the almanac; let alone the differences caused by the use of different Siddhāntas.

Thus, to give an example. The civil day, Monday, 21 October A.D. 1090, was by the *Ārya Siddhānta* true system described as "Monday, 25 Tūlā, nija Āśvina kr. 10," while by the mean system it was "Monday, 27 Tūlā, Kārttika kr. 10." Thursday, 31 Oct., in the same year was by the true system "Thursday, 5 Vṛiśchika, Kārttika śukla 6," while by the mean system it was "Thursday, 7 Vṛiśchika, Mārgaśīra śukla 5."

305. The present Tables are based on the First *Ārya Siddhānta* as amended by Lalla. The principal Table LXXVI is framed on the lines of the *Indian Calendar*, Table I, so as to meet the convenience of epigraphists who have become accustomed to the use of that work. The numbers of the columns are made to correspond in both Tables.

Results of calculation carried out by the present Tables will be found to correspond with those worked by use of Professor H. Jacobi's skeleton Tables published in Vol. XI above. There is no need for me to dwell on the great services he has rendered to the cause of Indian history and epigraphy. These are well known. All I have done is to follow in his footsteps,

¹ This note is reproduced here exactly as it was sent by Mons. G. Jouveau-Dubreuil; no corrections have been effected in it.

² [For Plate see the article on 'A Vākātaka Inscription from Ganj.'—F. W. T.]

verify his figures to the best of my ability and apply the results to practical use. Any little differences that exist between us have been fully set forth and their cause explained.

Elements. Arya Siddhānta, mean system.

306. (i) The length of the mean sidereal solar year is $365^d 6^h 12^m 30^s$, or $365^d.2586805$.

(ii) For the sun's mean motion per day, hour, etc., see Tables XLIII, XLIV, above, Vol. XIV.

(iii) The distance of mean moon from mean sun (our a), measured in 10,000ths of the circle, i.e. 10,000ths of the mean synodical revolution of the moon and excluding 12 whole revolutions, increases, during one sidereal solar year, from 0 to 3688.231484714 . That is the advance of a in the year. Table LXIV A above, col. 3, shews this advance per day, and Table LXV the advance per hour, etc.

(iv) The value of a in mean reckoning corresponds to that of t , the tithi-index, in true reckoning. It shews what mean tithi was current at the moment in question.¹ In general calculation by the Tables this moment is the moment of mean sunrise at Laṅkā, taken as 6 A.M.

(v) In reckoning by 10,000ths of the circle the advance of a in one mean solar month is 307.352623726 .

(vi) Each mean solar month consists of $30^d 10^h 31^m 2\frac{1}{2}^s$. The collective duration from the moment of mean Mēsha-saṁkrānti (the beginning of the mean solar year when the mean sun is at celestial long. 0°) to each separate saṁkrānti, or the moment when the mean sun enters each of the signs, is given in Table LXXVII.

(vii) The length of each mean lunar month is $29^d 12^h 44^m 2.79^s$ or $29^d.530587946$, during which the mean moon's distance from mean sun increases, in our circle reckoning, from 0 to 10,000. The length of one mean tithi, or one-thirtieth of the mean lunar synodic month, is $23^h 37^m 28.09^s$, or $0^d.984352931$; during which, in circle reckoning, the increase of a is 333.3 .

(viii) The *sodhya*, or time-difference between the moments of arrival at celestial long. 0° of the true and mean suns, which moments are known respectively as the true and mean Mēsha-saṁkrāntis, is $2^d 3^h 32^m 30^s$, true Mēsha-saṁkrānti being the earlier.

The time of occurrence of mean Mēsha-saṁkrānti in every year is given in Table LXXVI, cols. 13 to 17.

(ix) The samvatsara name of the solar year is the same by both true and mean reckonings, except in the years A.D. 564-5, 805-6, 990-1, 1246-7 and 1331-2. A special footnote is appended to the main Table LXXVI in each case.

(x) There can be no suppression of a lunar month when calculation is made by the mean system; for the length of a mean solar month is greater than that of a mean lunar month, so that two mean solar saṁkrāntis cannot take place within the limits of one mean lunar month.

(xi) Let it be noted that no intercalation of a lunar month can take place unless, at mean sunrise of the day on which mean Mēsha-saṁkrānti took place, the value of a is more than 6280.4892 , or unless at the moment of mean Mēsha-saṁkrānti the value of a is more than 6619.1211 ; the latter value being $10,000 - 3380.8789$, the total increase of a from Mēsha- to Mīna-saṁkrānti, and the former being $6619.1211 - 338.6319$, the latter value being the increase of a in 24-hours.

The 19-year intercalation cycle.

307 (See Indian Calendar, § 50, p. 29.) By the mean system the cycle-sequence is found to work with almost perfect regularity. After four successive intercalations at intervals of 10 years each the intercalated lunar month gives way to the month preceding it. But there are

¹ The equations of sun and moon are not taken into account in mean reckoning.

two exceptions in the nine centuries embraced in Table LXXVI. Between A.D. 751 and 827 there is a run of five intercalary mean Pausa months, and between A.D. 1242 and 1318 there is a run of five intercalary mean Āsvina months.

In eleven instances the names of the mean intercalary months given in Table LXXVI differ from those stated in the *Indian Calendar*. These differences are due to the former calculations having been based on Professor Jacobi's earliest Tables published 30 years ago, while the present ones agree with the results of calculation made by his more recent elementary fixtures. Each difference is specially noted at foot of Table LXXVI.

The nakshatra.

308. In the mean system the position at any moment of the mean moon in the ecliptic circle, i.e. the mean moon's nakshatra, is found by adding her mean distance from the mean sun to the latter's longitude; that is to say, by adding to the value of s (the mean sun's longitude) the value of a at the same moment as found by calculation for the mean tithi. All work by the Tables being in the first instance for the mean positions of sun and moon at mean sunrise of any day, Table LXXX provides the sun's mean long., s , in 10,000ths of the circle, for each period of 24-hours measured from the moment of mean Mēsha-samkrānti, while Table LXXXI states the same increase for fractions of the day. To obtain the value of s for mean sunrise of any day it is necessary to note first its value after the interval of days between the day of Mēsha-samkrānti and the given day (Table LXXX), and, since that value is measured from the moment of Mēsha-samkrānti and not from mean sunrise, afterwards to deduct from the value so obtained the increase during that fraction of the day (Table LXXXI). The result is the required s , or the mean sun's long. at mean sunrise of the given day. Then $s + a = n$, the nakshatra index required, or the mean moon's place in the ecliptic circle at mean sunrise of that day.

The Rule for work, then, is as follows. Find the value of a ($=t$), the mean tithi-index at mean sunrise of the given day (*Example 2 below*). Note the serial number of the day as measured from Jan. 1. Deduct from this the serial number of the day of mean Mēsha-samkrānti (Table LXXVI, col. 13, in brackets). This gives the number of intervening days. Turn to Table LXXX and note the value of s against that interval of days. Deduct from this the mean sun's movement given in Table LXXXI during the hours and minutes stated in Table LXXVI, col. 17. The result is the required value of s at mean sunrise of the given day. Add s to a . This $= n$, the required nakshatra-index. Table LXVIII above, or Table VIII, *Indian Calendar*, gives the name of the nakshatra.

The Tables.

309. Table LXXVI corresponds to Table I *Indian Calendar* in formation and is to be used in the same way. Here the value of a is the value of t . It gives the tithi-index direct without further calculation.¹

Table LXXVII shews the duration and collective duration of mean solar months, and the increase in the moon's phase, a , during each such month.

Table LXXVIII gives the value of a at the beginning of each Kaliyuga century.

Table LXXIX corresponds, with a necessary shift of position, to Table LXXIV above, the use of which is fully explained in my former papers, §§ 279, 301.

¹ To find the value of a , or t , i.e. the exact moon's phase, in 10,000ths of the circle, at any moment of any day, note its value at mean sunrise of the first civil day of the luni-solar year, as given in Table LXXVI (col. 23), and add its value for intervening days, hours, etc. (Tables LXIV, LXV under heading a).

Tables LXXVIII and LXXIX, with Table LXXIII above (under heading *a*), which gives the value of *a* at the beginning of each year of the Kaliyuga century, enable us to find the value of *a* at mean sunrise of the civil day Chaitra śukla 1 at the beginning of each luni-solar year. Tables LXXVIII and LXXIII yield the value of *a* at mean sunrise of the day on which mean Mēsha-samkrānti occurred; and Table LXXIX enables, by addition, the *a* for the interval of days between that day and the day Chaitra śukla 1 to be ascertained. [The same can be found by subtracting from the sum of the values obtained from Tables LXXVIII and LXXIII (col. *a*) the value for those intervening days given in Table LXIV above (*see Example 1*).]

The use of Tables LXXX and LXXXI is explained above (§ 308). They correspond, *mutatis mutandis*, with Tables XLVIII A, XLIX above used in calculation for the sun's true longitude.

310. The century-Table LXXVIII requires some further explanation. Its object is to determine the mean moon's phase, *a*, at mean sunrise of the opening civil day of each Kaliyuga century, i.e. the day on which mean Mēsha-samkrānti occurred at some time later on that day. Reference to Table LXXVI shows that this opening day occurred at the beginnings of centuries 36 and 37 K.Y. on a Sunday, and in centuries 38 to 45 on a Saturday. From Table I, *Indian Calendar*, by adding the *sādhya* interval (*above*, § 306, *viii*) to the date and time there given for the moment of true Mēsha-samkrānti, we find that in centuries 46 to 48 it fell on a Friday. In the mean system, therefore, centuries 37 and 45 were defective centuries, while the rest were common.

Table LXXVIII corresponds to Table LXXII above, which concerns true solar years, and by the true system, i.e. calculation by the movements of true sun, the only defective century was century 42. This accounts for the difference between the two Tables.

It has been shewn above (§ 299, i) that the actual value of *a* at mean sunrise of Sunday, 21 March A.D. 499, on which day, 6 hours later, occurred the moment of mean Mēsha-samkrānti (mean sun at 0°) at the beginning of Kaliyuga century 36, was, in notation in 10,000ths of the circle, 7715·352496330. The values of *a* for later century-beginnings are found by addition to this of the century increases of *a*, common and defective as required.

EXAMPLES.

Example 1. To find the European day, week-day, and phase of mean moon, i.e. the mean tithi-index a (which = t, the index) at mean sunrise of the first civil day of the luni-solar year; that is to say, of the day called "Chaitra śukla 1" of the year in question.

[This example is given in order to enable any student to verify the entries in Table LXXVI, cols. 19-23. For ordinary date work the entries themselves afford all information.]

The mean new moon which marks the astronomical beginning of any mean lunar year is the new moon at the end of the lunar month Phālguna of the previous year. The moment of its occurrence is always earlier than the moment in the current year of mean Mēsha-samkrānti, the beginning of the mean solar year. The civil day next following the moment of the initial mean new moon of the year is called "Chaitra śukla 1," that tithi being current at mean sunrise of that civil day. Our tabular calculations being for mean sunrise, the value of *a* in Table LXXVI, col. 23, must always be between 0 and 333·3, the last being the limit of the tithi.

To find its value for any year we must first calculate the value of *a* at mean sunrise on the day of occurrence of mean Mēsha-samkrānti from Tables LXXVIII and LXXIII (*above*) under heading *a*.

This done there are two processes by which the mean sunrise value of *a* on the day Chaitra śukla 1 can be obtained. One is to use Table LXIV, which, by *deducting* from the *a* of mean Mēsha-samkrānti-day mean sunrise (already found) the next lower value of *a* in the Table as given for the first 30 days, yields at once the interval of days between Chaitra śukla 1 and

Mēsha-samkrānti, the value of a at mean sunrise of the former, and the required week-day. The second process is, using Table LXXIX, to find such earlier day as by adding its a to the a of Mēsha-samkrānti, already found, will yield a result between 0 and 333·3. The Table then shows the interval of days between the two sunrises, and the week-day corresponding to Chaitra śukla 1.

A. Take for instance the year K.Y. 3725 expired, A.D. 624-25. Mean Mēsha-samkrānti occurred in that year (Table LXXVI, cols. 13-17) on Wed. 21 Mar.,—serial day 81, from Jan. 1. We take the value of a at mean sunrise at the beginning of the Kaliyuga century and at the beginning of the expired year from Tables LXXVIII and LXXIII respectively. The result gives the value of a at mean sunrise of Mēsha-samkrānti day in the given year.

| | <i>w-d.</i> | <i>a.</i> |
|--|-------------|-----------|
| (Table LXXVIII). K.Y. cent. 37 | (1) | 6583·1816 |
| (Table LXXIII above). K.Y. year 25 | (3) | 2047·6413 |
| At mean sunrise on Wed. 21 Mar., the day of occurrence of mean Mēsha-samkrānti | (4) | 8630·8229 |

Process 1.

| | | |
|--|------|------------|
| (Table LXIV above). Next lower value of a in the first 30 days of the Table, i.e. that for 25 days | —(4) | —8465·7968 |
| At mean sunrise of the day Chaitra śukla 1 | (0) | 165·0261 |

This Chaitra śukla 1 civil day was (81—25=) Day 56, or (Table IX, Indian Calendar, or LXIX above) Sat. 25 Feb. A.D. 624.

Process 2.

| | <i>w-d.</i> | <i>a.</i> |
|--|-------------|-------------|
| At mean sunrise on Wed. 21 Mar., the day of mean Mēsha-samkrānti (as above) | (4) | 8630·8229 |
| (Table LXXIX). The only value of a which yields result between 0 and 333·3 | + (3) | + 1534·2032 |
| At mean sunrise of the day Chaitra śukla 1 | (0) | 165·0261 |

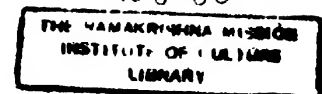
Table LXXIX shews that the interval of days was 25, and the result is in all respects the same as the former.

B. Calculation for the mean sunrise value of a on the day of mean Mēsha-samkrānti, the first step shewn in the above, by use of Tables LXXVIII and LXXIII sometimes results in the day found being not the actual day on which Mēsha-samkrānti took place but the day next to it. This is inevitable, seeing that only one Table has to stand for the odd years of all centuries. In such case the necessary adjustment must be made for one day's difference. The entries in Table LXXVI, cols. 13 to 17, are conclusive as to the actual day.

Take the year A.D. 625-26, K.Y. 3726 expired. In that year mean Mēsha-samkrānti occurred on Thurs. 21 Mar., serial day 80.

| | <i>w-d.</i> | <i>a.</i> |
|--|-------------|-----------|
| (Table LXXVIII). K.Y. century 37 | (1) | 6583·1816 |
| (Table LXXIII). K.Y. year 26 | (5) | 5986·9072 |
| At mean sunrise of Friday, 22 Mar. | (6) | 2570·9888 |
| Deduct value for one day (Table LXIV) | —(1) | —338·6319 |
| At m. sunrise of Thurs. 21 Mar., the day of mean Mēsha-samkrānti | (5) | 2231·4569 |

10 80 30



For the *a* of Chaitra śukla 1 and its day and week-day we use either of the two processes.

| <i>Process 1.</i> | | <i>w-d.</i> | <i>a.</i> |
|--|-------|-------------|------------|
| At m. sunrise of m. M. S.-day, Thurs. 21 Mar. | (5) | | 2231·4569 |
| (Table LXIV above). Next lower value of <i>a</i> in the first
30 days of the Table, viz. for 6 days' interval | — (6) | | —2031·7912 |
| At mean sunrise of Fri. 15 Mar., being the day Chaitra
śukla 1 | (6) | | 199·6657 |
| <i>Or, Process 2.</i> | | <i>w-d.</i> | <i>a.</i> |
| At m. sunrise of m. Mēsha-saṁk. day (as above) | (5) | | 2231·4569 |
| Add (Table LXXIX for 6 days earlier) | + (1) | | +7968·2086 |
| Result (same as above) | (6) | | 199·6657 |

Example 2. To find the mean tithi-index *a* for any day in the year, or any moment of any day.

Table LXXVI, cols. 19-23, states the civil day, Chaitra śukla 1, for each year, its serial number from Jan. 1, its week-day, and its tithi-index *a* at mean sunrise. Calculate, from Table III *Indian Calendar* or Table LXIII above, the interval of whole days to mean sunrise on the given day, and, if necessary, the fraction of day subsequent to that sunrise. Add the increment of *a* for whole days from Table LXIV, and for fractions of the day from Table LXV, to the *a* given in Table LXXVI.

Whole numbers may always be used for whole days, the decimals being only resorted to for close cases and when the calculation includes a fraction of a day.

E.g. Required the tithi-index at mean sunrise on Āshāḍha śukla 4 in the year corresponding to A.D. 625-26; and at 8^h 20^m 15^s after m. sunrise on that day.

| | <i>d.</i> | <i>w-d.</i> | <i>a.</i> |
|--|-----------|-------------|-----------|
| Table LXXVI. Chait. śuk. 1, mean sunrise | (74) | (6) | 199·6657 |
| Tables LXIII A, LXIV. Interval to Āsh. śuk. 4,
and increase of <i>a</i> | (91) | (0) | 815·5005 |
| At mean sunrise on Āsh. śuk. 4 day | (165) | (6) | 1015·1662 |

Day 165 was (Table IX, *Indian Calendar*, or Table LXIX above) 14 June A.D. 625 (6)=Friday. *a*=1015 shews (Table VIII or LXVIII) that śukla 4 was current at mean sunrise of that day.

For the specific hour mentioned—

| | <i>a.</i> |
|--|-------------------------|
| At mean sunrise on that day | 1015·1662 |
| (Table LXV) | 8 ^h 112·8773 |
| | 20 ^m 4·7032 |
| | 15 ^s 0·0586 |
| At 8 ^h 20 ^m 15 ^s after mean sunrise | <i>a</i> = 1132·8055 |

Example 3. To find *a* (the tithi-index, or phase of mean moon) at each of the solar saṁkrāntis in the year (the moments of the mean sun's entrance into the several signs), and to determine whether an intercalation of a lunar month took place during the year.

Table LXXVI, cols. 13, 14, 17, shews the day and time of occurrence of mean Mēsha-saṁkrānti (mean sun at long. 0°) in each year, and Example 1 shews how to find the value of a at mean sunrise of that day. To that value must be added from Table LXV the increment of a during the interval from mean sunrise to moment of saṁkrānti. The advance of a during each mean solar month, i.e. from each mean saṁkrānti to the next (Table LXXVII, col. 4) is 307·3526. The work may be carried out by use of whole numbers, except when a case is very close. This occurs when a waning moon is very near 10,000, or when a waxing moon is very near 6.

Required the above details for the years noted in Examples 1, 2, viz. A.D. 624-5 and 625-6.

In A.D. 624-25 mean Mēsha-saṁkrānti took place $14^h 2^m 30^s$ after mean sunrise. In A.D. 625-26 it took place $20^h 15^m 0^s$ after mean sunrise (Table LXXVI, cols. 13-17).

| | |
|--|------------------|
| A.D. 624-25. Value of a at m. sunrise on mean Mēsha-saṁ- | a . |
| krānti-day, as already found (Example 1) | 8830·8229 |
| (Table LXV). Increase of a in 14^h | 197·5353 |
| Ditto 2^m | 0·4703 |
| Ditto 30^s | 0·1176 |
| Exact value of a at moment of mean Mēsha-saṁkrānti | <u>8828·9461</u> |
| A.D. 625-26. Value of a at m. sunrise of mean Mēsha-saṁ- | |
| krānti-day as found | 2231·4569 |
| (Table LXV). Increase of a in 20^h | 282·1932 |
| Ditto 15^m | 3·5274 |
| Exact value of a at moment of mean Mēsha-saṁkrānti | <u>2517·1775</u> |

For the several saṁkrāntis in each year we work here roughly with whole numbers only, adding successively the increase of a in 1 solar month.

| | A.D. 624-25 | A.D. 625-26 |
|-----------------------------|----------------------------|-------------|
| At Mēsha-saṁkr. | <u>$a=8829$</u> | <u>2517</u> |
| | 307 | 307 |
| At Vṛishabha-saṁkr. | <u>9136</u> | <u>2824</u> |
| | 307 | 307 |
| At Mithuna-saṁkr. | <u>9443</u> | <u>3131</u> |
| | 307 | 307 |
| At Karka-saṁkr. | <u>9750</u> | <u>3438</u> |
| | 307 | 307 |
| At Simha-saṁkr. | <u>57</u> | <u>3745</u> |
| | etc. | etc. |

In A.D. 624-25 it is seen that the mean moon was waning at the Karka-saṁkrānti and waxing at the Simha-saṁkrānti, proving an intercalation of a lunar month, which month (see Table LXXVII, col. 1) was Śrāvaṇa. Actually a at Simha-saṁkrānti was 58 36.

In A.D. 625-26 the small value of a at the moment of *Mēsha-saṁkrānti* shews that there could have been no intercalation in that year (*see above*, § 306, xi).

Example 4. To find the mean moon's nakshatra, or her place in the ecliptic circle at any moment.

(*See § 308 above.*) We have to find the value of s , the sun's mean long., at the given moment and the value at the same moment of a , the index of the mean tithi. $s + a = n$, the index of the nakshatra. I assume that, as usual, the values wanted are those at mean sunrise on the given day; for later moments they can easily be found, from Table LXV for a , and from Table LXXXI for s . The example here given will shew the process of work.

Required the nakshatra at mean sunrise on the day referred to in Example 2, viz. *Āshāḍha śukla 4* in K.Y. 3726, which was proved to be 14 June A.D. 625, and on which day at mean sunrise the value of a was found to be 1015.1662. The day, measured from Jan. 1, was serial number 165. In that year mean *Mēsha-saṁkrānti* took place (Table LXXVI) on Day 80 at 20^h 15^m after mean sunrise. The interval of whole days between 20^h 15^m after mean sunrise on the day of *Mēsha-saṁkrānti* and 20^h 15^m after mean sunrise on the given day is (165 - 80 =) 85.

| | | | | | |
|--|---|---|---|---------------|-----------------------|
| (Table LXXX). Interval of 85 days | . | . | . | . | 2327.1179 |
| Less (Table LXXXI) for 20 ^h | . | . | . | 22.8149 | |
| for 15 ^m | . | . | . | 0.2852 | |
| | | | | <hr/> 23.1001 | |
| | | | | . | - 23.1001 |
| At mean sunrise on the day <i>Āshāḍha śuk. 4</i> , | . | . | . | . | <hr/> $s = 2304.0178$ |
| Add a , as found for that mean sunrise | . | . | . | . | 1015.1662 |
| | | | | | <hr/> |
| At mean sunrise on that day (=14 June) | . | . | . | . | $n = 3319.1840$ |

Table VIII *Indian Calendar*, or Table LXVIII above, shews that the moon was then in the nakshatra *Āślēṣhā* by the equal-space system and by Garga, but in *Maghā* by the *Brāhma Siddhānta*.¹

The value of n , 3319.1840, in 10,000ths of the circle, can be converted into degrees, if required, by Table XLV B, above. It = 119° 29' 26". That was the mean moon's place.

Example 5. The lagna. (*See Indian Chronography*, § 193, p. 74, and Example 63, p. 127.) Required to ascertain at what hour on the day *Āshāḍha śuk. 4* K.Y. 3726, or 14 June A.D. 625, the sign *Tulā* became lagna.

At mean sunrise the sun's mean long. s was (Example 4) 2304.0178, roughly (Table XLV above) 82° 57'. The first point of *Tulā* (*Libra*) (*Indian Chronography*, Table XXII) is 180°. 180° - 82° 57' = 97° 3'. 97° × 4 = 388^m, or 6^h 28^m. 3' × 4 = 12^s. The first point of *Tulā*, therefore, was lagna at 6^h 28^m 12^s after mean sunrise on the day in question. It lasted for 2 hours, when *Vṛiśchika* (*Scorpio*) became lagna.

¹ As to these systems see *Indian Calendar*, § 38, p. 21; *Indian Chronography*, § 112 etc.

TABLE LXXVI.

Mean System Table, First Arya Siddhānta.

TABLE

MEAN SYSTEM TABLE,

Numbers of columns conform

(Cols. 1 to 4.)—The years herein stated are the *current* years corresponding
 (Cols. 6 and 7.)—*Saṁvatsara*-names of mean solar years in italics shew where

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAṂVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3601 | 422 | 557 | | | 499-500 | 9 Yuvan . . . | | 9 Mārgaśira . |
| 3602 | 423 | 558 | | | *500-01 | 10 Dhātṛi . . . | | ... |
| 3603 | 424 | 559 | | | 501-02 | 11 Jāvara . . . | | ... |
| 3604 | 425 | 560 | | | 502-03 | 12 Bahudhānya . . . | | 5 Śrāvaṇa . |
| 3605 | 426 | 561 | | | 503-04 | 13 Pramāthūn . . . | | ... |
| 3606 | 427 | 562 | | | *504-05 | 14 Vikrama . . . | | ... |
| 3607 | 428 | 563 | | | 505-06 | 15 Vṛisha . . . | | 2 Vaiśākha . |
| 3608 | 429 | 564 | | | 506-07 | 16 Chitrabhānu . . . | | ... |
| 3609 | 430 | 565 | | | 507-08 | 17 Subhānu . . . | | 10 Pausha . |
| 3610 | 431 | 566 | | | *508-09 | 18 Tāraṇa . . . | | ... |
| 3611 | 432 | 567 | | | 509-10 | 19 Pārthiva . . . | | ... |
| 3612 | 433 | 568 | | | 510-11. | 20 Vyaya . . . | | 7 Āśvina . |
| 3613 | 434 | 569 | | | 511-12 | 21 Sarvajit . . . | | ... |
| 3614 | 435 | 570 | | | *512-13 | 22 Sarvadhārin . . . | | ... |
| 3615 | 436 | 571 | | | 513-14 | 23 Virōdhin . . . | | 3 Jyēṣṭha . |
| 3616 | 437 | 572 | | | 514-15 | 24 Vikṛita . . . | | ... |
| 3617 | 438 | 573 | | | 515-16 | 25 Khara . . . | | 12 Phālguna . |
| 3618 | 439 | 574 | | | *516-17 | 26 Nandana . . . | | ... |
| 3619 | 440 | 575 | | | 517-18 | 27 Vijaya . . . | | ... |
| 3620 | 441 | 576 | | | 518-19 | 28 Jaya . . . | | 8 Kārttika . |

LXXVI.

FIRST ĀRYA SIDDHANTA.

to Table I, "Indian Calendar."

to the A.D. years in col. 5; as in Table I, "Indian Calendar."

differences exist from *Sūrya Siddhanta* nomenclature in true solar years.

1 Ārya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | Kali year. |
|---------------------|-----------|-------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 21 Mar. (80) . . | 1 Sun. . | 6 0 0 | 27 Feb. (58) . | 0 Sat. . | 265-4513 | 3601 |
| 20 Mar. (80) . . | 2 Mon. . | 12 12 30 | 17 Mar. (77) . | 6 Fri. . | 300-0909 | 3602 |
| 20 Mar. (79) . . | 3 Tues. . | 18 25 0 | 6 Mar. (65) . | 3 Tues. . | 175-7743 | 3603 |
| 21 Mar. (80) . . | 5 Thur. . | 0 37 30 | 23 Feb. (54) . | 0 Sat. . | 51-4577 | 3604 |
| 21 Mar. (80) . . | 6 Fri. . | 6 50 0 | 14 Mar. (73) . | 6 Fri. . | 86-0973 | 3605 |
| 20 Mar. (80) . . | 0 Sat. . | 13 2 30 | 3 Mar. (63) . | 4 Wed. . | 300-4125 | 3606 |
| 20 Mar. (79) . . | 1 Sun. . | 19 15 0 | 20 Feb. (51) . | 1 Sun. . | 176-0959 | 3607 |
| 21 Mar. (80) . . | 3 Tues. . | 1 27 30 | 11 Mar. (70) . | 0 Sat. . | 210-7356 | 3608 |
| 21 Mar. (80) . . | 4 Wed. . | 7 40 0 | 28 Feb. (59) . | 4 Wed. . | 86-4189 | 3609 |
| 20 Mar. (80) . . | 5 Thur. . | 13 52 30 | 18 Mar. (78) . | 3 Tues. . | 121-0586 | 3610 |
| 20 Mar. (79) . . | 6 Fri. . | 20 5 0 | 7 Mar. (66) . | 0 Sat. . | 9996-7419† | 3611 |
| 21 Mar. (80) . . | 1 Sun. . | 2 17 30 | 25 Feb. (56) . | 5 Thur. . | 211-0572 | 3612 |
| 21 Mar. (80) . . | 2 Mon. . | 8 30 0 | 16 Mar. (75) . | 4 Wed. . | 245-6968 | 3613 |
| 20 Mar. (80) . . | 3 Tues. . | 14 42 30 | 4 Mar. (64) . | 1 Sun. . | 121-3802 | 3614 |
| 20 Mar. (79) . . | 4 Wed. . | 20 55 0 | 21 Feb. (52) . | 5 Thur. . | 9997-0635† | 3615 |
| 21 Mar. (80) . . | 6 Fri. . | 3 7 30 | 12 Mar. (71) . | 4 Wed. . | 31-7031 | 3616 |
| 21 Mar. (80) . . | 0 Sat. . | 9 20 0 | 2 Mar. (61) . | 2 Mon. . | 246-9185 | 3617 |
| 20 Mar. (80) . . | 1 Sun. . | 15 32 30 | 20 Mar. (80) . | 1 Sun. . | 280-6581 | 3618 |
| 20 Mar. (79) . . | 2 Mon. . | 21 45 0 | 9 Mar. (68) . | 5 Thur. . | 156-3414 | 3619 |
| 21 Mar. (80) . . | 4 Wed. . | 3 57 30 | 26 Feb. (57) . | 2 Mon. . | 32-0248 | 3620 |

† As a mean tithi Chaitra Śukla 1 was suppressed. The civil day corresponding to it, i.e., the first day of the mean luni-solar year, was as given in cols. 19, 20.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3621 | 442 | 577 | | | 519-20 | 29 Manmatha . . | | ... |
| 3622 | 443 | 578 | | | *520-21 | 30 Durmukha . . | | ... |
| 3623 | 444 | 579 | | | 521-22 | 31 Hēmalamba . . | | 5 Śrāvapa . |
| 3624 | 445 | 580 | | | 522-23 | 32 Vilamba . . | | ... |
| 3625 | 446 | 581 | | | 523-24 | 33 Vikārin . . | | ... |
| 3626 | 447 | 582 | | | *524-25 | 34 Śārvarin . . | | 1 Chaitra . |
| 3627 | 448 | 583 | | | 525-26 | 35 Plava . . | | ... |
| 3628 | 449 | 584 | | | 526-27 | 36 Śubhakṛit . . | | 10 Pausha . |
| 3629 | 450 | 585 | | | 527-28 | 37 Śōbhana . . | | ... |
| 3630 | 451 | 586 | | | *528-29 | 38 Krōdhin . . | | ... |
| 3631 | 452 | 587 | | | 529-30 | 39 Viśvāvasu . . | | 7 Āśvina . |
| 3632 | 453 | 588 | | | 530-31 | 40 Parābhava . . | | ... |
| 3633 | 454 | 589 | | | 531-32 | 41 Plavaṅga . . | | ... |
| 3634 | 455 | 590 | | | *532-33 | 42 Kilaka . . | | 3 Jyēshṭha . |
| 3635 | 456 | 591 | | | 533-34 | 43 Saumya . . | | ... |
| 3636 | 457 | 592 | | | 534-35 | 44 Sādhāraṇa . . | | 12 Phālguna . |
| 3637 | 458 | 593 | | | 535-36 | 45 Virōdhakṛit . . | | ... |
| 3638 | 459 | 594 | | | *536-37 | 46 Paridhāvin . . | | ... |
| 3639 | 460 | 595 | | | 537-38 | 47 Pramādin . . | | 8 Kārttika . |
| 3640 | 461 | 596 | | | 538-39 | 48 Ānanda . . | | ... |
| 3641 | 462 | 597 | | | 539-40 | 49 Rākshasa . . | | ... |
| 3642 | 463 | 598 | | | *540-41 | 50 Anala . . | | 5 Śrāvapa . |
| 3643 | 464 | 599 | | | 541-42 | 51 Piṅgala . . | | ... |
| 3644 | 465 | 600 | | | 542-43 | 52 Kālayukta . . | | ... |
| 3645 | 466 | 601 | | | 543-44 | 53 Siddhārthin . . | | 1 Chaitra . |

LXXVI—Contd.

I Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | Kali year. |
|---------------------|-----------|-------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 21 Mar. (80) . . | 5 Thur. . | 10 10 0 | 17 Mar. (76) . | 1 Sun. . | 66-6044 | 3621 |
| 20 Mar. (80) . . | 6 Fri. . | 16 22 30 | 6 Mar. (66) . | 6 Fri. . | 280-9797 | 3622 |
| 20 Mar. (79) . . | 0 Sat. . | 22 35 0 | 23 Feb. (54) . | 3 Tues. . | 156-0631 | 3623 |
| 21 Mar. (80) . . | 2 Mon. . | 4 47 30 | 14 Mar. (73) . | 2 Mon. . | 191-3027 | 3624 |
| 21 Mar. (80) . . | 3 Tues. . | 11 0 0 | 3 Mar. (62) . | 6 Fri. . | 66-9860 | 3625 |
| 20 Mar. (80) . . | 4 Wed. . | 17 12 30 | 21 Feb. (52) . | 4 Wed. . | 281-3013 | 3626 |
| 20 Mar. (79) . . | 5 Thur. . | 23 25 0 | 11 Mar. (70) . | 3 Tues. . | 315-9409 | 3627 |
| 21 Mar. (80) . . | 0 Sat. . | 5 37 30 | 28 Feb. (59) . | 0 Sat. . | 191-6243 | 3628 |
| 21 Mar. (80) . . | 1 Sun. . | 11 50 0 | 19 Mar. (78) . | 6 Fri. . | 226-2640 | 3629 |
| 20 Mar. (80) . . | 2 Mon. . | 18 2 30 | 7 Mar. (67) . | 3 Tues. . | 101-9473 | 3630 |
| 21 Mar. (80) . . | 4 Wed. . | 0 15 0 | 25 Feb. (56) . | 1 Sun. . | 316-2626 | 3631 |
| 21 Mar. (80) . . | 5 Thur. . | 6 27 30 | 15 Mar. (74) . | 6 Fri. . | 12-2703 | 3632 |
| 21 Mar. (80) . . | 6 Fri. . | 12 40 0 | 5 Mar. (64) . | 4 Wed. . | 226-5856 | 3633 |
| 20 Mar. (80) . . | 0 Sat. . | 18 52 30 | 22 Feb. (53) . | 1 Sun. . | 102-2690 | 3634 |
| 21 Mar. (80) . . | 2 Mon. . | 1 5 0 | 12 Mar. (71) . | 0 Sat. . | 136-9086 | 3635 |
| 21 Mar. (80) . . | 3 Tues. . | 7 17 30 | 1 Mar. (60) . | 4 Wed. . | 12-5920 | 3636 |
| 21 Mar. (80) . . | 4 Wed. . | 13 30 0 | 20 Mar. (79) . | 3 Tues. . | 47-2316 | 3637 |
| 20 Mar. (80) . . | 5 Thur. . | 19 42 30 | 9 Mar. (69) . | 1 Sun. . | 261-5469 | 3638 |
| 21 Mar. (80) . . | 0 Sat. . | 1 55 0 | 26 Feb. (57) . | 5 Thur. . | 137-2303 | 3639 |
| 21 Mar. (80) . . | 1 Sun. . | 8 7 30 | 17 Mar. (76) . | 4 Wed. . | 171-8699 | 3640 |
| 21 Mar. (80) . . | 2 Mon. . | 14 20 0 | 6 Mar. (65) . | 1 Sun. . | 47-5533 | 3641 |
| 20 Mar. (80) . . | 3 Tues. . | 20 32 30 | 24 Feb. (55) . | 6 Fri. . | 261-8686 | 3642 |
| 21 Mar. (80) . . | 5 Thur. . | 2 45 0 | 14 Mar. (73) . | 5 Thur. . | 296-5082 | 3643 |
| 21 Mar. (80) . . | 6 Fri. . | 8 57 30 | 3 Mar. (62) . | 2 Mon. . | 172-1916 | 3644 |
| 21 Mar. (80) . . | 0 Sat. . | 15 10 0 | 20 Feb. (51) . | 6 Fri. . | 47-8749 | 3645 |

TABLE

| CONCURRENT YEAR. | | | | | | | Mean
Intercalated
(adhika) lunar
month.

108030 | |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|--|---------------------|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | | Northern
system. |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3646 | 467 | 602 | | | *544-45 | 54 Raudra . . . | | ... |
| 3647 | 468 | 603 | | | 545-46 | 55 Durmati . . . | | 10 Pausha . |
| 3648 | 469 | 604 | | | 546-47 | 56 Dundubhi . . . | | ... |
| 3649 | 470 | 605 | | | 547-48 | 57 Rudhirōdgārin . . . | | ... |
| 3650 | 471 | 606 | | | *548-49 | 58 Raktāksha . . . | | 6 Bhādrapada |
| 3651 | 472 | 607 | | | 549-50 | 59 Krōdhana . . . | | ... |
| 3652 | 473 | 608 | | | 550-51 | 60 Kshaya . . . | | ... |
| 3653 | 474 | 609 | | | 551-52 | 1 Prabhava . . . | | 3 Jyēshṭha . |
| 3654 | 475 | 610 | | | *552-53 | 2 Vibhava . . . | | ... |
| 3655 | 476 | 611 | | | 553-54 | 3 Śukla . . . | | 11 Māgha . |
| 3656 | 477 | 612 | | | 554-55 | 4 Pramōda . . . | | ... |
| 3657 | 478 | 613 | | | 555-56 | 5 Prajāpati . . . | | ... |
| 3658 | 479 | 614 | | | *556-57 | 6 Aṅgiras . . . | | 8 Kārttika . |
| 3659 | 480 | 615 | | | 557-58 | 7 Śrīmukha . . . | | ... |
| 3660 | 481 | 616 | | | 558-59 | 8 Bhāva . . . | | ... |
| 3661 | 482 | 617 | | | 559-60 | 9 Yuvan . . . | | 4 Āshāḍha . |
| 3662 | 483 | 618 | | | *560-61 | 10 Dhātṛi . . . | | ... |
| 3663 | 484 | 619 | | | 561-62 | 11 Isvara . . . | | ... |
| 3664 | 485 | 620 | | | 562-63 | 12 Bahudhānya . . . | | 1 Chaitra . |
| 3665 | 486 | 621 | | | 563-64 | 13 Pramāthin† . . . | | ... |
| 3666 | 487 | 622 | | | *564-65 | 15 Vṛisha . . . | | 10 Pausha . |
| 3667 | 488 | 623 | | | 565-66 | 16 Chitrabhānu . . . | | ... |
| 3668 | 489 | 624 | | | 566-67 | 17 Subhānu . . . | | ... |
| 3669 | 490 | 625 | | | 567-68 | 18 Tārana . . . | | 6 Bhādrapada. |
| 3670 | 491 | 626 | | | *568-69 | 19 Pārthiva . . . | | ... |

† By I Ārya Siddhānta mean system 14 Vikrama was expunged, and A.D. 564-65 corresponded to 15 Vṛisha. By the same authority true system A.D. 564-65 corresponded to 14 Vikrama, and 15 Vṛisha was expunged. A.D. 565-66 was 16 Chitrabhānu by both systems.

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|--------------------------------|-----------|-------------------------------|---|-----------|---------------------------------------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēṣha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 20 Mar. (80) . . | 1 Sun. . | 21 22 30 | 10 Mar. (70) . . | 5 Thur. . | 82-5145 | 3646 |
| 21 Mar. (80) . . | 3 Tues. . | 3 35 0 | 28 Feb. (59) . . | 3 Tues. . | 296-8298 | 3647 |
| 21 Mar. (80) . . | 4 Wed. . | 9 47 30 | 19 Mar. (78) . . | 2 Mon. . | 331-4694 | 3648 |
| 21 Mar. (80) . . | 5 Thur. . | 16 0 0 | 8 Mar. (07) . . | 6 Fri. . | 207-1528 | 3649 |
| 20 Mar. (80) . . | 6 Fri. . | 22 12 30 | 25 Feb. (56) . . | 3 Tues. . | 82-8361 | 3650 |
| 21 Mar. (80) . . | 1 Sun. . | 4 25 0 | 15 Mar. (74) . . | 2 Mon. . | 117-4757 | 3651 |
| 21 Mar. (80) . . | 2 Mon. . | 10 37 30 | 5 Mar. (64) . . | 0 Sat. . | 331-7910 | 3652 |
| 21 Mar. (80) . . | 3 Tues. . | 16 50 0 | 22 Feb. (53) . . | 4 Wed. . | 207-4744 | 3653 |
| 20 Mar. (80) . . | 4 Wed. . | 23 2 30 | 12 Mar. (72) . . | 3 Tues. . | 242-1140 | 3654 |
| 21 Mar. (80) . . | 6 Fri. . | 5 15 0 | 1 Mar. (60) . . | 0 Sat. . | 117-7974 | 3655 |
| 21 st Mar. (80) . . | 0 Sat. . | 11 27 30 | 20 Mar. (79) . . | 6 Fri. . | 152-4370 | 3656 |
| 21 Mar. (80) . . | 1 Sun. . | 17 40 0 | 9 Mar. (68) . . | 3 Tues. . | 28-1204 | 3657 |
| 20 Mar. (80) . . | 2 Mon. . | 23 52 30 | 27 Feb. (58) . . | 1 Sun. . | 242-4357 | 3658 |
| 21 Mar. (80) . . | 4 Wed. . | 6 5 0 | 17 Mar. (76) . . | 0 Sat. . | 277-0753 | 3659 |
| 21 Mar. (80) . . | 5 Thur. . | 12 17 30 | 6 Mar. (65) . . | 4 Wed. . | 152-7587 | 3660 |
| 21 Mar. (80) . . | 6 Fri. . | 18 30 0 | 23 Feb. (54) . . | 1 Sun. . | 28-4421 | 3661 |
| 21 Mar. (81) . . | 1 Sun. . | 0 42 30 | 13 Mar. (73) . . | 0 Sat. . | 63-0817 | 3662 |
| 21 Mar. (80) . . | 2 Mon. . | 6 55 0 | 3 Mar. (62) . . | 5 Thur. . | 277-3970 | 3663 |
| 21 Mar. (80) . . | 3 Tues. . | 13 7 30 | 20 Feb. (51) . . | 2 Mon. . | 153-0803 | 3664 |
| 21 Mar. (80) . . | 4 Wed. . | 19 20 0 | 11 Mar. (70) . . | 1 Sun. . | 187-7200 | 3665 |
| 21 Mar. (81) . . | 6 Fri. . | 1 32 30 | 28 Feb. (59) . . | 5 Thur. . | 63-4034 | 3666 |
| 21 Mar. (80) . . | 0 Sat. . | 7 45 0 | 18 Mar. (77) . . | 4 Wed. . | 98-0430 | 3667 |
| 21 Mar. (80) . . | 1 Sun. . | 13 57 30 | 8 Mar. (67) . . | 2 Mon. . | 312-3582 | 3668 |
| 21 Mar. (80) . . | 2 Mon. . | 20 10 0 | 25 Feb. (56) . . | 6 Fri. . | 189-0416 | 3669 |
| 21 Mar (81) . . | 4 Wed. . | 2 22 30 | 15 Mar. (75) . . | 5 Thur. . | 222-6813 | 3670 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3671 | 492 | 627 | | | 569-70 | 20 Vyaya . . . | | ... |
| 3672 | 493 | 628 | | | 570-71 | 21 Sarvajit . . . | | 3 Jyēshṭha . |
| 3673 | 494 | 629 | | | 571-72 | 22 Sarvadhārin . . . | | ... |
| 3674 | 495 | 630 | | | *572-73 | 23 Virōdhin . . . | | 11 Māgha . |
| 3675 | 496 | 631 | | | 573-74 | 24 Vikṛita . . . | | ... |
| 3676 | 497 | 632 | | | 574-75 | 25 Khara . . . | | ... |
| 3677 | 498 | 633 | | | 575-76 | 26 Nandana . . . | | 8 Kārttika . |
| 3678 | 499 | 634 | | | *576-77 | 27 Vijaya . . . | | ... |
| 3679 | 500 | 635 | | | 577-78 | 28 Jaya . . . | | ... |
| 3680 | 501 | 636 | | | 578-79 | 29 Manmatha . . . | | 4 Āshāḍha . |
| 3681 | 502 | 637 | | | 579-80 | 30 Durmukha . . . | | ... * |
| 3682 | 503 | 638 | | | *580-81 | 31 Hēmalamba . . . | | ... |
| 3683 | 504 | 639 | | | 581-82 | 32 Vilamba . . . | | 1 Chaitra . |
| 3684 | 505 | 640 | | | 582-83 | 33 Vikārin . . . | | ... |
| 3685 | 506 | 641 | | | 583-84 | 34 Śārvarin . . . | | 9 Mārgaśīra . |
| 3686 | 507 | 642 | | | *584-85 | 35 Plava . . . | | ... |
| 3687 | 508 | 643 | | | 585-86 | 36 Śubhakṛit . . . | | ... |
| 3688 | 509 | 644 | | | 586-87 | 37 Śōbhana . . . | | 6 Bhādrapada. |
| 3689 | 510 | 645 | | | 587-88 | 38 Krōdhin . . . | | ... |
| 3690 | 511 | 646 | | | *588-89 | 39 Viśvāvasu . . . | | ... |
| 3691 | 512 | 647 | | | 589-90 | 40 Parābhava . . . | | 2 Vaiśākha . |
| 3692 | 513 | 648 | | | 590-91 | 41 Plavaṅga . . . | | ... |
| 3693 | 514 | 649 | | | 591-92 | 42 Kilaka . . . | | 11 Māgha . |
| 3694 | 515 | 650 | | | *592-93 | 43 Saumya . . . | | ... |
| 3695 | 516 | 651 | | | 593-94 | 44 Sādhāraṇa . . . | | ... |

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṅkrānti. | Day and month, A.D. | Week-day. | u (here = t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| 21 Mar. (80) . . . | 5 Thur. . . | H. M. S.
8 35 0 | 4 Mar. (63) . . . | 2 Mon. . . | 98-3646 | 3671 |
| 21 Mar. (80) . . . | 6 Fri. . . | 14 47 30 | 22 Feb. (53) . . . | 0 Sat. . . | 312-6799 | 3672 |
| 21 Mar. (80) . . . | 0 Sat. . . | 21 0 0 | 12 Mar. (71) . . . | 5 Thur. . . | 8-6876 | 3673 |
| 21 Mar. (81) . . . | 2 Mon. . . | 3 12 30 | 1 Mar. (61) . . . | 3 Tues. . . | 223-0020 | 3674 |
| 21 Mar. (80) . . . | 3 Tues. . . | 9 25 0 | 20 Mar. (79) . . . | 2 Mon. . . | 257-6425 | 3675 |
| 21 Mar. (80) . . . | 4 Wed. . . | 15 37 30 | 9 Mar. (68) . . . | 6 Fri. . . | 133-3259 | 3676 |
| 21 Mar. (80) . . . | 5 Thur. . . | 21 50 0 | 26 Feb. (57) . . . | 3 Tues. . . | 9-0092 | 3677 |
| 21 Mar. (81) . . . | 0 Sat. . . | 4 2 30 | 18 Mar. (76) . . . | 2 Mon. . . | 43-6488 | 3678 |
| 21 Mar. (80) . . . | 1 Sun. . . | 10 15 0 | 6 Mar. (65) . . . | 0 Sat. . . | 257-9641 | 3679 |
| 21 Mar. (80) . . . | 2 Mon. . . | 16 27 30 | 23 Feb. (54) . . . | 4 Wed. . . | 133-6476 | 3680 |
| 21 Mar. (80) . . . | 3 Tues. . . | 22 40 0 | 14 Mar. (73) . . . | 3 Tues. . . | 168-2871 | 3681 |
| 21 Mar. (81) . . . | 5 Thur. . . | 4 52 30 | 2 Mar. (62) . . . | 0 Sat. . . | 43-9705 | 3682 |
| 21 Mar. (80) . . . | 6 Fri. . . | 11 5 0 | 20 Feb. (51) . . . | 5 Thur. . . | 258-2857 | 3683 |
| 21 Mar. (80) . . . | 0 Sat. . . | 17 17 30 | 11 Mar. (70) . . . | 4 Wed. . . | 292-9254 | 3684 |
| 21 Mar. (80) . . . | 1 Sun. . . | 23 30 0 | 28 Feb. (59) . . . | 1 Sun. . . | 168-6087 | 3685 |
| 21 Mar. (81) . . . | 3 Tues. . . | 5 42 30 | 18 Mar. (78) . . . | 0 Sat. . . | 203-2484 | 3686 |
| 21 Mar. (80) . . . | 4 Wed. . . | 11 55 0 | 7 Mar. (66) . . . | 4 Wed. . . | 78-9317 | 3687 |
| 21 Mar. (80) . . . | 5 Thur. . . | 18 7 30 | 25 Feb. (56) . . . | 2 Mon. . . | 293-2470 | 3688 |
| 22 Mar. (81) . . . | 0 Sat. . . | 0 20 0 | 16 Mar. (75) . . . | 1 Sun. . . | 327-8867 | 3689 |
| 21 Mar. (81) . . . | 1 Sun. . . | 6 32 30 | 4 Mar. (64) . . . | 5 Thur. . . | 203-5700 | 3690 |
| 21 Mar. (80) . . . | 2 Mon. . . | 12 45 0 | 21 Feb. (52) . . . | 2 Mon. . . | 79-2534 | 3691 |
| 21 Mar. (80) . . . | 3 Tues. . . | 18 57 30 | 12 Mar. (71) . . . | 1 Sun. . . | 113-8930 | 3692 |
| 22 Mar. (81) . . . | 5 Thur. . . | 1 10 0 | 2 Mar. (61) . . . | 6 Fri. . . | 328-2083 | 3693 |
| 21 Mar. (81) . . . | 6 Fri. . . | 7 22 30 | 19 Mar. (79) . . . | 4 Wed. . . | 24-2160 | 3694 |
| 21 Mar. (80) . . . | 0 Sat. . . | 13 35 0 | 9 Mar. (68) . . . | 2 Mon. . . | 238-5313 | 3695 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitradī Vikrama. | Mēshādī solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3696 | 517 | 652 | 1 | | 594-95 | 45 Virōdhakṛit . . | | 7 Āśvina |
| 3697 | 518 | 653 | 2 | | 595-96 | 46 Paridhāvin . . | | ... |
| 3698 | 519 | 654 | 3 | | *596-97 | 47 Pramādin . . | | ... |
| 3699 | 520 | 655 | 4 | | 597-98 | 48 Ānanda . . | | 4 Āshādha . |
| 3700 | 521 | 656 | 5 | | 598-99 | 49 Rākshasa . . | | ... |
| 3701 | 522 | 657 | 6 | | 599-600 | 50 Anala . . | | 12 Phālguna . |
| 3702 | 523 | 658 | 7 | | *600-01 | 51 Pīngala . . | | ... |
| 3703 | 524 | 659 | 8 | | 601-02 | 52 Kālayukta . . | | ... |
| 3704 | 525 | 660 | 9 | | 602-03 | 53 Siddhārthin . . | | 9 Mārgasīra . |
| 3705 | 526 | 661 | 10 | | 603-04 | 54 Raudra . . | | ... |
| 3706 | 527 | 662 | 11 | | *604-05 | 55 Durmati . . | | ... |
| 3707 | 528 | 663 | 12 | | 605-06 | 56 Dundubhi . . | | 6 Bhādrapada. |
| 3708 | 529 | 664 | 13 | | 606-07 | 57 Rudhirōdgārin. . | | ... |
| 3709 | 530 | 665 | 14 | | 607-08 | 58 Raktāksha . . | | ... |
| 3710 | 531 | 666 | 15 | | *608-09 | 59 Krōdhana . . | | 2 Vaiśākha . |
| 3711 | 532 | 667 | 16 | | 609-10 | 60 Kshaya . . | | ... |
| 3712 | 533 | 668 | 17 | | 610-11 | 1 Prabhava . . | | 11 Māgha . |
| 3713 | 534 | 669 | 18 | | 611-12 | 2 Vibhava . . | | ... |
| 3714 | 535 | 670 | 19 | | *612-13 | 3 Śukla . . | | ... |
| 3715 | 536 | 671 | 20 | | 613-14 | 4 Pramōda . . | | 7 Āśvina . |
| 3716 | 537 | 672 | 21 | | 614-15 | 5 Prajūpati . . | | ... |
| 3717 | 538 | 673 | 22 | | 615-16 | 6 Aṅgiras . . | | ... |
| 3718 | 539 | 674 | 23 | | *616-17 | 7 Śrīmukha . . | | 4 Āshādha |
| 3719 | 540 | 675 | 24 | | 617-18 | 8 Bhāva . . | | ... |
| 3720 | 541 | 676 | 25 | | 618-19 | 9 Yuva . . | | 12 Phālguna |

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | | Kali year. |
|---------------------|-----------|-------------------------------|---|-----------|---------------------------------------|------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 21 Mar. (80) . . | 1 Sun. . | 19 47 30 | 26 Feb. (57) . | 6 Fri. . | 114-2147 | 3696 | |
| 22 Mar. (81) . . | 3 Tues. . | 2 0 0 | 17 Mar. (76) . | 5 Thur. . | 148-8543 | 3697 | |
| 21 Mar. (81) . . | 4 Wed. . | 8 12 30 | 5 Mar. (65) . | 2 Mon. . | 24-5377 | 3698 | |
| 21 Mar. (80) . . | 5 Thur. . | 14 25 0 | 23 Feb. (54) . | 0 Sat. . | 238-8530 | 3699 | |
| 21 Mar. (80) . . | 6 Fri. . | 20 37 30 | 14 Mar. (73) . | 6 Fri. . | 273-4926 | 3700 | |
| 22 Mar. (81) . . | 1 Sun. . | 2 50 0 | 3 Mar. (62) . | 3 Tues. . | 149-1760 | 3701 | |
| 21 Mar. (81) . . | 2 Mon. . | 9 2 30 | 21 Mar. (81) . | 2 Mon. . | 183-8156 | 3702 | |
| 21 Mar. (80) . . | 3 Tues. . | 15 15 0 | 10 Mar. (69) . | 6 Fri. . | 59-4990 | 3703 | |
| 21 Mar. (80) . . | 4 Wed. . | 21 27 30 | 28 Feb. (59) . | 4 Wed. . | 273-8142 | 3704 | |
| 22 Mar. (81) . . | 6 Fri. . | 3 40 0 | 19 Mar. (78) . | 3 Tues. . | 308-4539 | 3705 | |
| 21 Mar. (81) . . | 0 Sat. . | 9 52 30 | 7 Mar. (67) . | 0 Sat. . | 184-1373 | 3706 | |
| 21 Mar. (80) . . | 1 Sun. . | 16 5 0 | 24 Feb. (55) . | 4 Wed. . | 59-8207 | 3707 | |
| 21 Mar. (80) . . | 2 Mon. . | 22 17 30 | 15 Mar. (74) . | 3 Tues. . | 94-4603 | 3708 | |
| 22 Mar. (81) . . | 4 Wed. . | 4 30 0 | 5 Mar. (64) . | 1 Sun. . | 308-7756 | 3709 | |
| 21 Mar. (81) . . | 5 Thur. . | 10 42 30 | 22 Feb. (53) . | 5 Thur. . | 184-4580 | 3710 | |
| 21 Mar. (80) . . | 6 Fri. . | 16 55 0 | 12 Mar. (71) . | 4 Wed. . | 219-0985 | 3711 | |
| 21 Mar. (80) . . | 0 Sat. . | 23 7 30 | 1 Mar. (60) . | 1 Sun. . | 94-7819 | 3712 | |
| 22 Mar. (81) . . | 2 Mon. . | 5 20 0 | 20 Mar. (79) . | 0 Sat. . | 129-4215 | 3713 | |
| 21 Mar. (81) . . | 3 Tues. . | 11 32 30 | 8 Mar. (68) . | 4 Wed. . | 5-1049 | 3714 | |
| 21 Mar. (80) . . | 4 Wed. . | 17 45 0 | 26 Feb. (57) . | 2 Mon. . | 219-4201 | 3715 | |
| 21 Mar. (80) . . | 5 Thur. . | 23 57 30 | 17 Mar. (76) . | 1 Sun. . | 254-0597 | 3716 | |
| 22 Mar. (81) . . | 0 Sat. . | 6 10 0 | 6 Mar. (65) . | 5 Thur. . | 129-7432 | 3717 | |
| 21 Mar. (81) . . | 1 Sun. . | 12 22 30 | 23 Feb. (54) . | 2 Mon. . | 5-4266 | 3718 | |
| 21 Mar. (80) . . | 2 Mon. . | 18 35 0 | 13 Mar. (72) . | 1 Sun. . | 40-0661 | 3719 | |
| 22 Mar. (81) . . | 4 Wed. . | 0 47 30 | 3 Mar. (62) . | 6 Fri. . | 254-3814 | 3720 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3721 | 542 | 677 | 26 | | 619-20 | 10 Dhātṛi . . . | | ... |
| 3722 | 543 | 678 | 27 | | *620-21 | 11 Īsvara . . . | | ... |
| 3723 | 544 | 679 | 28 | | 621-22 | 12 Bahudhānya . . . | | 9 Mārgasīra . |
| 3724 | 545 | 680 | 29 | | 622-23 | 13 Pramāthin . . . | | ... |
| 3725 | 546 | 681 | 30 | | 623-24 | 14 Vikrama . . . | | ... |
| 3726 | 547 | 682 | 31 | | *624-25 | 15 Vṛisha . . . | | 5 Śrāvaṇa . |
| 3727 | 548 | 683 | 32 | | 625-26 | 16 Chitrabhānu . . . | | ... |
| 3728 | 549 | 684 | 33 | | 626-27 | 17 Subhānu . . . | | ... |
| 3729 | 550 | 685 | 34 | | 627-28 | 18 Tāraṇa . . . | | 2 Vaiśākha . |
| 3730 | 551 | 686 | 35 | | *628-29 | 19 Pārthiva . . . | | ... |
| 3731 | 552 | 687 | 36 | | 629-30 | 20 Vyaya . . . | | 10 Pausa . |
| 3732 | 553 | 688 | 37 | | 630-31 | 21 Sarvajit . . . | | ... |
| 3733 | 554 | 689 | 38 | | 631-32 | 22 Sarvadhārin . . . | | ... |
| 3734 | 555 | 690 | 39 | | *632-33 | 23 Virōdhin . . . | | 7 Āśvina . |
| 3735 | 556 | 691 | 40 | | 633-34 | 24 Vikṛita . . . | | ... |
| 3736 | 557 | 692 | 41 | | 634-35 | 25 Khara . . . | | ... |
| 3737 | 558 | 693 | 42 | | 635-36 | 26 Nandana . . . | | 3 Jyēshṭha . |
| 3738 | 559 | 694 | 43 | | *636-37 | 27 Vijaya . . . | | ... |
| 3739 | 560 | 695 | 44 | | 637-38 | 28 Jaya . . . | | 12 Phālguna . |
| 3740 | 561 | 696 | 45 | | 638-39 | 29 Manmatha . . . | | ... |
| 3741 | 562 | 697 | 46 | | 639-40 | 30 Durmukha . . . | | ... |
| 3742 | 563 | 698 | 47 | | *640-41 | 31 Hēmalamba . . . | | 9 Mārgasīra . |
| 3743 | 564 | 699 | 48 | | 641-42 | 32 Vilamba . . . | | ... |
| 3744 | 565 | 700 | 49 | | 642-43 | 33 Vikārin . . . | | ... |
| 3745 | 566 | 701 | 50 | | 643-44 | 34 Śārvarin . . . | | 5 Śrāvaṇa . |

LXXVI—Contd.

I Ārya Siddhānta, mean system

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---|-------------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | a (here $-t$, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 22 Mar. (81) . . | 5 Thur. . | 7 0 0 | 22 Mar. (81) . . | 5 Thur. . | 289-0209 | 3721 |
| 21 Mar. (81) . . | 6 Fri. . | 13 12 30 | 10 Mar. (70) . . | 2 Mon. . | 164-7044 | 3722 |
| 21 Mar. (80) . . | 0 Sat. . | 19 25 0 | 27 Feb. (58) . . | 6 Fri. . | 40-3877 | 3723 ¹ |
| 22 Mar. (81) . . | 2 Mon. . | 1 37 30 | 18 Mar. (77) . . | 5 Thur. . | 75-0274 | 3724 |
| 22 Mar. (81) . . | 3 Tues. . | 7 50 0 | 8 Mar. (67) . . | 3 Tues. . | 289-3427 | 3725 |
| 21 Mar. (81) . . | 4 Wed. . | 14 2 30 | 25 Feb. (56) . . | 0 Sat. . | 165-0261 | 3726 |
| 21 Mar. (80) . . | 5 Thur. . | 20 15 0 | 15 Mar. (74) . . | 6 Fri. . | 199-6657 | 3727 |
| 22 Mar. (81) . . | 0 Sat. . | 2 27 30 | 4 Mar. (63) . . | 3 Tues. . | 75-3491 | 3728 |
| 22 Mar. (81) . . | 1 Sun. . | 8 40 0 | 22 Feb. (53) . . | 1 Sun. . | 289-6643 | 3729 |
| 21 Mar. (81) . . | 2 Mon. . | 14 52 30 | 12 Mar. (72) . . | 0 Sat. . | 324-3039 | 3730 |
| 21 Mar. (80) . . | 3 Tues. . | 21 5 0 | 1 Mar. (60) . . | 4 Wed. . | 199-9873 | 3731 |
| 22 Mar. (81) . . | 5 Thur. . | 3 17 30 | 20 Mar. (79) . . | 3 Tues. . | 234-6269 | 3732 |
| 22 Mar. (81) . . | 6 Fri. . | 9 30 0 | 9 Mar. (68) . . | 0 Sat. . | 110-3103 | 3733 |
| 21 Mar. (81) . . | 0 Sat. . | 15 42 30 | 27 Feb. (58) . . | 5 Thur. . | 324-6256 | 3734 |
| 21 Mar. (80) . . | 1 Sun. . | 21 55 0 | 16 Mar. (75) . . | 3 Tues. . | 20-6333 | 3735 |
| 22 Mar. (81) . . | 3 Tues. . | 4 7 30 | 6 Mar. (65) . . | 1 Sun. . | 234-9486 | 3736 |
| 22 Mar. (81) . . | 4 Wed. . | 10 20 0 | 23 Feb. (54) . . | 5 Thur. . | 110-6320 | 3737 |
| 21 Mar. (81) . . | 5 Thur. . | 16 32 30 | 13 Mar. (73) . . | 4 Wed. . | 145-2716 | 3738 |
| 21 Mar. (80) . . | 6 Fri. . | 22 45 0 | 2 Mar. (61) . . | 1 Sun. . | 20-9550 | 3739 |
| 22 Mar. (81) . . | 1 Sun. . | 4 57 30 | 21 Mar. (80) . . | 0 Sat. . | 55-5916 | 3740 |
| 22 Mar. (81) . . | 2 Mon. . | 11 10 0 | 11 Mar. (70) . . | 5 Thur. . | 269-9099 | 3741 |
| 21 Mar. (81) . . | 3 Tues. . | 17 22 30 | 28 Feb. (59) . . | 2 Mon. . | 145-5933 | 3742 |
| 21 Mar. (80) . . | 4 Wed. . | 23 35 0 | 18 Mar. (77) . . | 1 Sun. . | 180-2329 | 3743 |
| 22 Mar. (81) . . | 6 Fri. . | 5 47 30 | 7 Mar. (66) . . | 5 Thur. . | 55-9163 | 3744 |
| 22 Mar. (81) . . | 0 Sat. . | 12 0 0 | 25 Feb. (56) . . | 3 Tues. . | 270-2316 | 3745 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|--|
| Kali | Saka. | Chaitrādi Vikrama. | Meśhādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3746 | 567 | 702 | 51 | | *644-45 | 35 Plava . . . | | ... |
| 3747 | 568 | 703 | 52 | | 645-46 | 36 Subhakṛit . . . | | ... |
| 3748 | 569 | 704 | 53 | | 646-47 | 37 Sōbhana . . . | | 2 Vaiśākha . |
| 3749 | 570 | 705 | 54 | | 647-48 | 38 Krōdhin . . . | | ... |
| 3750 | 571 | 706 | 55 | | *648-49 | 39 Viśvāvasu . . . | | 10 Pausha . |
| 3751 | 572 | 707 | 56 | | 649-50 | 40 Parābhava† . . . | | ... |
| 3752 | 573 | 708 | 57 | | 650-51 | 42 Kīlaka . . . | | ... |
| 3753 | 574 | 709 | 58 | | 651-52 | 43 Saumya . . . | | 7 Āśvina . |
| 3754 | 575 | 710 | 59 | | *652-53 | 44 Sūdhāranya . . . | | ... |
| 3755 | 576 | 711 | 60 | | 653-54 | 45 Virōdhakṛit . . . | | ... |
| 3756 | 577 | 712 | 61 | | 654-55 | 46 Paridhāvin . . . | | 3 Jyēshṭha . |
| 3757 | 578 | 713 | 62 | | 655-56 | 47 Pramādin . . . | | ... |
| 3758 | 579 | 714 | 63 | | *656-57 | 48 Ānanda . . . | | 12 Phālguna . |
| 3759 | 580 | 715 | 64 | | 657-58 | 49 Rākshasa . . . | | ... |
| 3760 | 581 | 716 | 65 | | 658-59 | 50 Anala . . . | | ... |
| 3761 | 582 | 717 | 66 | | 659-60 | 51 Piṅgala . . . | | 8 Kārttika . |
| 3762 | 583 | 718 | 67 | | *660-61 | 52 Kālayukta . . . | | ... |
| 3763 | 584 | 719 | 68 | | 661-62 | 53 Siddhārthin . . . | | ... |
| 3764 | 585 | 720 | 69 | | 662-63 | 54 Raudra . . . | | 5 Śrāvaṇa . |
| 3765 | 586 | 721 | 70 | | 663-64 | 55 Durmati . . . | | ... |
| 3766 | 587 | 722 | 71 | | *664-65 | 56 Dundubhi . . . | | ... |
| 3767 | 588 | 723 | 72 | | 665-66 | 57 Rudhirōdgārīn . . . | | 1 Chaitra . |
| 3768 | 589 | 724 | 73 | | 666-67 | 58 Raktāksha . . . | | ... |
| 3769 | 590 | 725 | 74 | | 667-68 | 59 Krōdhana . . . | | 10 Pausha . |
| 3770 | 591 | 726 | 75 | | *668-69 | 60 Kshaya . . . | | ... |

† By the mean system 41 Plavaṅga was expunged, as also by the true system.

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here— <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 21 Mar. (81) . . | 1 Sun. . | 18 12 30 | 15 Mar. (75) . . | 2 Mon. . | 304-8711 | 3746 |
| 22 Mar. (81) . . | 3 Tues. . | 0 25 0 | 4 Mar. (63) . . | 6 Fri. . | 180-5545 | 3747 |
| 22 Mar. (81) . . | 4 Wed. . | 6 37 30 | 21 Feb. (52) . . | 3 Tues. . | 56-2378 | 3748 |
| 22 Mar. (81) . . | 5 Thur. . | 12 50 0 | 12 Mar. (71) . . | 2 Mon. . | 90-8775 | 3749 |
| 21 Mar. (81) . . | 6 Fri. . | 19 2 30 | 1 Mar. (61) . . | 0 Sat. . | 305-1927 | 3750 |
| 22 Mar. (81) . . | 1 Sun. . | 1 15 0 | 19 Mar. (78) . . | 5 Thur. . | 1-2005 | 3751 |
| 22 Mar. (81) . . | 2 Mon. . | 7 27 30 | 9 Mar. (68) . . | 3 Tues. . | 215-5157 | 3752 |
| 22 Mar. (81) . . | 3 Tues. . | 13 40 0 | 26 Feb. (57) . . | 0 Sat. . | 91-1991 | 3753 |
| 21 Mar. (81) . . | 4 Wed. . | 19 52 30 | 16 Mar. (76) . . | 6 Fri. . | 125-8387 | 3754 |
| 22 Mar. (81) . . | 6 Fri. . | 2 5 0 | 5 Mar. (64) . . | 3 Tues. . | 1-5221 | 3755 |
| 22 Mar. (81) . . | 0 Sat. . | 8 17 30 | 23 Feb. (54) . . | 1 Sun. . | 215-8374 | 3756 |
| 22 Mar. (81) . . | 1 Sun. . | 14 30 0 | 14 Mar. (73) . . | 0 Sat. . | 250-4770 | 3757 |
| 21 Mar. (81) . . | 2 Mon. . | 20 42 30 | 2 Mar. (62) . . | 4 Wed. . | 126-1604 | 3758 |
| 22 Mar. (81) . . | 4 Wed. . | 2 55 0 | 21 Mar. (80) . . | 3 Tues. . | 160-8000 | 3759 |
| 22 Mar. (81) . . | 5 Thur. . | 9 7 30 | 10 Mar. (69) . . | 0 Sat. . | 36-4834 | 3760 |
| 22 Mar. (81) . . | 6 Fri. . | 15 20 0 | 28 Feb. (59) . . | 5 Thur. . | 250-7987 | 3761 |
| 21 Mar. (81) . . | 0 Sat. . | 21 32 30 | 18 Mar. (78) . . | 4 Wed. . | 285-4383 | 3762 |
| 22 Mar. (81) . . | 2 Mon. . | 3 45 0 | 7 Mar. (66) . . | 1 Sun. . | 161-1217 | 3763 |
| 22 Mar. (81) . . | 3 Tues. . | 9 57 30 | 24 Feb. (55) . . | 5 Thur. . | 36-8051 | 3764 |
| 22 Mar. (81) . . | 4 Wed. . | 16 10 0 | 15 Mar. (74) . . | 4 Wed. . | 71-4447 | 3765 |
| 21 Mar. (81) . . | 5 Thur. . | 22 22 30 | 4 Mar. (64) . . | 2 Mon. . | 285-7599 | 3766 |
| 22 Mar. (81) . . | 0 Sat. . | 4 35 0 | 21 Feb. (52) . . | 6 Fri. . | 161-4433 | 3767 |
| 22 Mar. (81) . . | 1 Sun. . | 10 47 30 | 12 Mar. (71) . . | 5 Thur. . | 196-0830 | 3768 |
| 22 Mar. (81) . . | 2 Mon. . | 17 0 0 | 1 Mar. (60) . . | 2 Mon. . | 71-7663 | 3769 |
| 21 Mar. (81) . . | 3 Tues. . | 23 12 30 | 18 Mar. (78) . . | 1 Sun. . | 106-4060 | 3770 |

TABLE

| CONCURRENT YEAR. | | | | | | | | |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | Mean
Intercalated
(adhika) lunar
month. |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3771 | 592 | 727 | 76 | | 669-70 | 1 Prabhava . . . | | ... |
| 3772 | 593 | 728 | 77 | | 670-71 | 2 Vibhava . . . | | 6 Bhādrapada |
| 3773 | 594 | 729 | 78 | | 671-72 | 3 Śukla . . . | | ... |
| 3774 | 595 | 730 | 79 | | *672-73 | 4 Pramōda . . . | | ... |
| 3775 | 596 | 731 | 80 | | 673-74 | 5 Prajāpati . . . | | 3 Jyēshṭha . |
| 3776 | 597 | 732 | 81 | | 674-75 | 6 Aṅgiras . . . | | ... |
| 3777 | 598 | 733 | 82 | | 675-76 | 7 Śrīmukha . . . | | 11 Magha . |
| 3778 | 599 | 734 | 83 | | *676-77 | 8 Bhāva . . . | | ... |
| 3779 | 600 | 735 | 84 | | 677-78 | 9 Yuvan . . . | | ... |
| 3780 | 601 | 736 | 85 | | 678-79 | 10 Dhātṛi . . . | | 8 Kārttika . |
| 3781 | 602 | 737 | 86 | | 679-80 | 11 Īśvara . . . | | ... |
| 3782 | 603 | 738 | 87 | | *680-81 | 12 Bahudhānya . . . | | ... |
| 3783 | 604 | 739 | 88 | | 681-82 | 13 Pramāthin . . . | | 5 Śrāvana . |
| 3784 | 605 | 740 | 89 | | 682-83 | 14 Vikrama . . . | | ... |
| 3785 | 606 | 741 | 90 | | 683-84 | 15 Vṛisha . . . | | ... |
| 3786 | 607 | 742 | 91 | | *684-85 | 16 Chitrābhānu . . . | | 1 Chaitra . |
| 3787 | 608 | 743 | 92 | | 685-86 | 17 Subhānu . . . | | ... |
| 3788 | 609 | 744 | 93 | | 686-87 | 18 Tāraṇa . . . | | 10 Pausha . |
| 3789 | 610 | 745 | 94 | | 687-88 | 19 Pārthiva . . . | | ... |
| 3790 | 611 | 746 | 95 | | *688-89 | 20 Vyaya . . . | | ... |
| 3791 | 612 | 747 | 96 | | 689-90 | 21 Sarvajit . . . | | 6 Bhādrapada |
| 3792 | 613 | 748 | 97 | | 690-91 | 22 Sarvadhārin . . . | | ... |
| 3793 | 614 | 749 | 98 | | 691-92 | 23 Virōdhin . . . | | ... |
| 3794 | 615 | 750 | 99 | | *692-93 | 24 Vikṛita . . . | | 3 Jyēshṭha . |
| 3795 | 616 | 751 | 100 | | 693-94 | 25 Khara . . . | | ... |

LXXVI—Contd.

1 Arya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|------------------------|-------------|--------------------------------------|---|-------------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month.
A.D. | Week-day. | Time of
mean Mēsha-
sankrānti. | Day and month.
A.D. | Week-day. | <i>a</i> (here= <i>t</i> ,
the index
of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 22 Mar. (81) . . | 5 Thur. . . | 5 25 0 | 9 Mar. (68) . . | 6 Fri. . . | 320-7213 | 3771 |
| 22 Mar. (81) . . | 6 Fri. . . | 11 37 30 | 26 Feb. (57) . . | 3 Tues. . . | 196-4046 | 3772 |
| 22 Mar. (81) . . | 0 Sat. . . | 17 50 0 | 17 Mar. (76) . . | 2 Mon. . . | 231-0442 | 3773 |
| 22 Mar. (82) . . | 2 Mon. . . | 0 2 30 | 5 Mar. (65) . . | 6 Fri. . . | 106-7276 | 3774 |
| 22 Mar. (81) . . | 3 Tues. . . | 6 15 0 | 23 Feb. (54) . . | 4 Wed. . . | 321-0429 | 3775 |
| 22 Mar. (81) . . | 4 Wed. . . | 12 27 30 | 13 Mar. (72) . . | 2 Mon. . . | 17-0506 | 3776 |
| 22 Mar. (81) . . | 5 Thur. . . | 18 40 0 | 3 Mar. (62) . . | 0 Sat. . . | 231-3658 | 3777 |
| 22 Mar. (82) . . | 0 Sat. . . | 0 52 30 | 21 Mar. (81) . . | 6 Fri. . . | 266-0054 | 3778 |
| 22 Mar. (81) . . | 1 Sun. . . | 7 5 0 | 10 Mar. (69) . . | 3 Tues. . . | 141-6888 | 3779 |
| 22 Mar. (81) . . | 2 Mon. . . | 13 17 30 | 27 Feb. (58) . . | 0 Sat. . . | 17-3723 | 3780 |
| 22 Mar. (81) . . | 3 Tues. . . | 19 30 0 | 18 Mar. (77) . . | 6 Fri. . . | 52-0118 | 3781 |
| 22 Mar. (82) . . | 5 Thur. . . | 1 42 30 | 7 Mar. (67) . . | 4 Wed. . . | 266-3271 | 3782 |
| 22 Mar. (81) . . | 6 Fri. . . | 7 55 0 | 24 Feb. (55) . . | 1 Sun. . . | 142-0105 | 3783 |
| 22 Mar. (81) . . | 0 Sat. . . | 14 7 30 | 15 Mar. (74) . . | 0 Sat. . . | 176-6501 | 3784 |
| 22 Mar. (81) . . | 1 Sun. . . | 20 20 0 | 4 Mar. (63) . . | 4 Wed. . . | 52-3331 | 3785 |
| 22 Mar. (82) . . | 3 Tues. . . | 2 32 30 | 22 Feb. (53) . . | 2 Mon. . . | 266-6187 | 3786 |
| 22 Mar. (81) . . | 4 Wed. . . | 8 45 0 | 12 Mar. (71) . . | 1 Sun. . . | 301-2884 | 3787 |
| 22 Mar (81) . . | 5 Thur. . . | 14 57 30 | 1 Mar. (60) . . | 5 Thur. . . | 176-9717 | 3788 |
| 22 Mar. (81) . . | 6 Fri. . . | 21 10 0 | 20 Mar. (75) . . | 4 Wed. . . | 211-6111 | 3789 |
| 22 Mar. (82) . . | 1 Sun. . . | 3 22 30 | 8 Mar. (68) . . | 1 Sun. . . | 87-2948 | 3790 |
| 22 Mar. (81) . . | 2 Mon. . . | 9 35 0 | 26 Feb. (57) . . | 6 Fri. . . | 301-6100 | 3791 |
| 22 Mar. (81) . . | 3 Tues. . . | 15 47 30 | 16 Mar. (75) . . | 4 Wed. . . | 9907-6177† | 3792 |
| 22 Mar. (81) . . | 4 Wed. . . | 22 0 0 | 6 Mar. (65) . . | 2 Mon. . . | 211-9330 | 3793 |
| 22 Mar. (82) . . | 6 Fri. . . | 4 12 30 | 23 Feb. (54) . . | 6 Fri. . . | 87-6164 | 3794 |
| 22 Mar. (81) . . | 0 Sat. . . | 10 25 0 | 13 Mar. (72) . . | 5 Thur. . . | 122-2560 | 3795 |

† As a mean tithi Chaitra Sukla 1 was expunged. The civil day corresponding to it, i.e., the first day of the mean luni-solar year, was as given in cols. 19, 20.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Meshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3796 | 617 | 752 | 101 | | 694-95 | 26 Nandana . . . | | 11 Māgha . |
| 3797 | 618 | 753 | 102 | | 695-96 | 27 Vijaya . . . | | ... |
| 3798 | 619 | 754 | 103 | | *696-97 | 28 Jaya . . . | | ... |
| 3799 | 620 | 755 | 104 | | 697-98 | 29 Manmatha . . . | | 8 Kārttika . |
| 3800 | 621 | 756 | 105 | | 698-99 | 30 Durmukha . . . | | ... |
| 3801 | 622 | 757 | 106 | | 699-700 | 31 Hēmalamba . . . | | ... |
| 3802 | 623 | 758 | 107 | | *700-01 | 32 Vilamba . . . | | 4 Āshāḍha . |
| 3803 | 624 | 759 | 108 | | 701-02 | 33 Vikārin . . . | | ... |
| 3804 | 625 | 760 | 109 | | 702-03 | 34 Śārvarin . . . | | ... |
| 3805 | 626 | 761 | 110 | | 703-04 | 35 Plava . . . | | 1 Chaitra . |
| 3806 | 627 | 762 | 111 | | *704-05 | 36 Śubhakṛit . . . | | ... |
| 3807 | 628 | 763 | 112 | | 705-06 | 37 Śōbhana . . . | | 9 Mārgasīra . |
| 3808 | 629 | 764 | 113 | | 706-07 | 38 Krōdhin . . . | | ... |
| 3809 | 630 | 765 | 114 | | 707-08 | 39 Viśvāvasu . . . | | ... |
| 3810 | 631 | 766 | 115 | | *708-09 | 40 Parābhava . . . | | 6 Bhādrapada |
| 3811 | 632 | 767 | 116 | | 709-10 | 41 Plavaṅga . . . | | ... |
| 3812 | 633 | 768 | 117 | | 710-11 | 42 Kīlaka . . . | | ... |
| 3813 | 634 | 769 | 118 | | 711-12 | 43 Saumya . . . | | 2 Vaisākha . |
| 3814 | 635 | 770 | 119 | | *712-13 | 44 Sūdhārāṇa . . . | | ... |
| 3815 | 636 | 771 | 120 | | 713-14 | 45 Virōdhakṛit . . . | | 11 Māgha . |
| 3816 | 637 | 772 | 121 | | 714-15 | 46 Paridhāvin . . . | | ... |
| 3817 | 638 | 773 | 122 | | 715-16 | 47 Pramādin . . . | | ... |
| 3818 | 639 | 774 | 123 | | *716-17 | 48 Ānanda . . . | | 8 Kārttika† . |
| 3819 | 640 | 775 | 124 | | 717-18 | 49 Rākshasa . . . | | ... |
| 3820 | 641 | 776 | 125 | | 718-19 | 50 Anala . . . | | ... |

† By the "Indian Calendar" 7 Āśvina was intercalated but the case was a close one.

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here - <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 22 Mar. (81) . . . | 1 Sun. . . | 16 37 30 | 2 Mar. (61) . . . | 2 Mon. . . | 9997-9394† | 3796 |
| 22 Mar. (81) . . . | 2 Mon. . . | 22 50 0 | 21 Mar. (80) . . . | 1 Sun. . . | 32-5790 | 3797 |
| 22 Mar. (82) . . . | 4 Wed. . . | 5 2 30 | 10 Mar. (70) . . . | 6 Fri. . . | 246-8943 | 3798 |
| 22 Mar. (81) . . . | 5 Thur. . . | 11 16 0 | 27 Feb. (58) . . . | 3 Tues. . . | 122-5777 | 3799 |
| 22 Mar. (81) . . . | 6 Fri. . . | 17 27 30 | 18 Mar. (77) . . . | 2 Mon. . . | 157-2173 | 3800 |
| 22 Mar. (81) . . . | 0 Sat. . . | 23 40 0 | 7 Mar. (66) . . . | 6 Fri. . . | 32-9006 | 3801 |
| 22 Mar. (82) . . . | 2 Mon. . . | 5 52 30 | 25 Feb. (56) . . . | 4 Wed. . . | 247-2159 | 3802 |
| 22 Mar. (81) . . . | 3 Tues. . . | 12 5 0 | 15 Mar. (74) . . . | 3 Tues. . . | 281-8555 | 3803 |
| 22 Mar. (81) . . . | 4 Wed. . . | 18 37 30 | 4 Mar. (63) . . . | 0 Sat. . . | 157-5389 | 3804 |
| 23 Mar. (82) . . . | 6 Fri. . . | 0 30 0 | 21 Feb. (52) . . . | 4 Wed. . . | 33-2223 | 3805 |
| 22 Mar. (82) . . . | 0 Sat. . . | 6 42 30 | 11 Mar. (71) . . . | 3 Tues. . . | 67-8619 | 3806 |
| 22 Mar. (81) . . . | 1 Sun. . . | 12 55 0 | 1 Mar. (60) . . . | 1 Sun. . . | 282-1771 | 3807 |
| 22 Mar. (81) . . . | 2 Mon. . . | 19 7 30 | 20 Mar. (79) . . . | 0 Sat. . . | 316-8168 | 3808 |
| 23 Mar. (82) . . . | 4 Wed. . . | 1 20 0 | 9 Mar. (68) . . . | 4 Wed. . . | 192-5002 | 3809 |
| 22 Mar. (82) . . . | 5 Thur. . . | 7 32 30 | 26 Feb. (57) . . . | 1 Sun. . . | 68-1835 | 3810 |
| 22 Mar. (81) . . . | 6 Fri. . . | 13 45 0 | 16 Mar. (75) . . . | 0 Sat. . . | 102-8231 | 3811 |
| 22 Mar. (81) . . . | 0 Sat. . . | 19 57 30 | 6 Mar. (65)] . . . | 5 Thur. . . | 317-1384 | 3812 |
| 23 Mar. (82) . . . | 2 Mon. . . | 2 10 0 | 23 Feb. (54) . . . | 2 Mon. . . | 192-8218 | 3813 |
| 22 Mar. (82) . . . | 3 Tues. . . | 8 22 30 | 13 Mar. (73) . . . | 1 Sun. . . | 227-4614 | 3814 |
| 22 Mar. (81) . . . | 4 Wed. . . | 14 35 0 | 2 Mar. (61) . . . | 5 Thur. . . | 103-1447 | 3815 |
| 22 Mar. (81) . . . | 5 Thur. . . | 20 47 30 | 21 Mar. (80) . . . | 4 Wed. . . | 137-7843 | 3816 |
| 23 Mar. (82) . . . | 0 Sat. . . | 3 0 0 | 10 Mar. (69) . . . | 1 Sun. . . | 13-4678 | 3817 |
| 22 Mar. (82) . . . | 1 Sun. . . | 9 12 30 | 28 Feb. (59) . . . | 6 Fri. . . | 227-7831 | 3818 |
| 22 Mar. (81) . . . | 2 Mon. . . | 15 25 0 | 18 Mar. (77) . . . | 5 Thur. . . | 262-4226 | 3819 |
| 22 Mar. (81) . . . | 3 Tues. . . | 21 37 30 | 7 Mar. (66) . . . | 2 Mon. . . | 138-1060 | 3820 |

As a mean tithi Chaitra Śukla 1 was suppressed. The civil day corresponding to it, i.e., the first day of the mean luni-solar year, was as given in cols. 19, 20.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Meshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 8 | 8a |
| 3821 | 642 | 777 | 126 | | 719-20 | 51 Piṅgala . . . | | 4 Āshādha . |
| 3822 | 643 | 778 | 127 | | *720-21 | 52 Kālayukta . . . | | ... |
| 3823 | 644 | 779 | 128 | | 721-22 | 53 Siddhārthin . . . | | ... |
| 3824 | 645 | 780 | 129 | | 722-23 | 54 Raudra . . . | | 1 Chaitra . |
| 3825 | 646 | 781 | 130 | | 723-24 | 55 Durmati . . . | | ... |
| 3826 | 647 | 782 | 131 | | *724-25 | 56 Dundubhi . . . | | 9 Mārgaśīra . |
| 3827 | 648 | 783 | 132 | | 725-26 | 57 Rudhirōdgarin . . . | | ... |
| 3828 | 649 | 784 | 133 | | 726-27 | 58 Raktāksha . . . | | ... |
| 3829 | 650 | 785 | 134 | | 727-28 | 59 Krōdhana . . . | | 6 Bhādrapada |
| 3830 | 651 | 786 | 135 | | *728-29 | 60 Kshaya . . . | | ... |
| 3831 | 652 | 787 | 136 | | 729-30 | 1 Prabhava . . . | | ... |
| 3832 | 653 | 788 | 137 | | 730-31 | 2 Vibhava . . . | | 2 Vaiśākha . |
| 3833 | 654 | 789 | 138 | | 731-32 | 3 Śukla . . . | | ... |
| 3834 | 655 | 790 | 139 | | *732-33 | 4 Pramōda . . . | | 11 Māgha . |
| 3835 | 656 | 791 | 140 | | 733-34 | 5 Prajāpati . . . | | ... |
| 3836 | 657 | 792 | 141 | | 734-35 | 6 Āngiras† . . . | | ... |
| 3837 | 658 | 793 | 142 | | 735-36 | 8 Bhāra . . . | | 7 Āśvina . |
| 3838 | 659 | 794 | 143 | | *736-37 | 9 Yavan . . . | | ... |
| 3839 | 660 | 795 | 144 | | 737-38 | 10 Dhātṛi . . . | | ... |
| 3840 | 661 | 796 | 145 | | 738-39 | 11 Jvara . . . | | 4 Āshādha . |
| 3841 | 662 | 797 | 146 | | 739-40 | 12 Bahudhānya . . . | | ... |
| 3842 | 663 | 798 | 147 | | *740-41 | 13 Pramāthin . . . | | 12 Phālguna . |
| 3843 | 664 | 799 | 148 | | 741-42 | 14 Vikrama . . . | | ... |
| 3844 | 665 | 800 | 149 | | 742-43 | 15 Vṛisha . . . | | ... |
| 3845 | 666 | 801 | 150 | | 743-44 | 16 Chitrabhānn . . . | | 9 Mārgaśīra . |

† By the mean system, as well as by the true system, 7 Śrīmukha was expunged.

LXXVI—Contd.

1 Arya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | | Kali year. |
|---------------------|-------------|------------------------------|---|-------------|--|------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēṣa-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here <i>t</i> , the index of the tithi). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 23 Mar. (82) . . | 5 Thur. . . | 3 50 0 | 24 Feb. (55) . . | 6 Fri. . . | 13-7894 | 3821 | |
| 22 Mar. (82) . . | 6 Fri. . . | 10 2 30 | 14 Mar. (74) . . | 5 Thur. . . | 48-4290 | 3822 | |
| 22 Mar. (81) . . | 0 Sat. . . | 16 15 0 | 4 Mar. (63) . . | 3 Tues. . . | 262-7443 | 3823 | |
| 22 Mar. (81) . . | 1 Sun. . . | 22 27 30 | 21 Feb. (52) . . | 0 Sat. . . | 138-4276 | 3824 | |
| 23 Mar. (82) . . | 3 Tues. . . | 4 40 0 | 12 Mar. (71) . . | 6 Fri. . . | 173-0673 | 3825 | |
| 22 Mar. (82) . . | 4 Wed. . . | 10 52 30 | 29 Feb. (60) . . | 3 Tues. . . | 48-7506 | 3826 | |
| 22 Mar. (81) . . | 5 Thur. . . | 17 5 0 | 19 Mar. (78) . . | 2 Mon. . . | 83-3903 | 3827 | |
| 22 Mar. (81) . . | 6 Fri. . . | 23 17 30 | 9 Mar. (68) . . | 0 Sat. . . | 297-7055 | 3828 | |
| 23 Mar. (82) . . | 1 Sun. . . | 5 30 0 | 26 Feb. (57) . . | 4 Wed. . . | 173-3890 | 3829 | |
| 22 Mar. (82) . . | 2 Mon. . . | 11 42 30 | 16 Mar. (76) . . | 3 Tues. . . | 208-0286 | 3830 | |
| 22 Mar. (81) . . | 3 Tues. . . | 17 55 0 | 5 Mar. (64) . . | 0 Sat. . . | 83-7119 | 3831 | |
| 23 Mar. (82) . . | 5 Thur. . . | 0 7 30 | 23 Feb. (54) . . | 5 Thur. . . | 298-0272 | 3832 | |
| 23 Mar. (82) . . | 6 Fri. . . | 6 20 0 | 14 Mar. (73) . . | 4 Wed. . . | 332-6669 | 3833 | |
| 22 Mar. (82) . . | 0 Sat. . . | 12 32 30 | 2 Mar. (62) . . | 1 Sun. . . | 208-3502 | 3834 | |
| 22 Mar. (81) . . | 1 Sun. . . | 18 45 0 | 21 Mar. (80) . . | 0 Sat. . . | 242-9898 | 3835 | |
| 23 Mar. (82) . . | 3 Tues. . . | 0 57 30 | 10 Mar. (69) . . | 4 Wed. . . | 118-0732 | 3836 | |
| 23 Mar. (82) . . | 4 Wed. . . | 7 10 0 | 28 Feb. (59) . . | 2 Mon. . . | 332-9885 | 3837 | |
| 22 Mar. (82) . . | 5 Thur. . . | 13 22 30 | 17 Mar. (77) . . | 0 Sat. . . | 28-9902 | 3838 | |
| 22 Mar. (81) . . | 6 Fri. . . | 19 35 0 | 7 Mar. (66) . . | 5 Thur. . . | 243-3115 | 3839 | |
| 23 Mar. (82) . . | 1 Sun. . . | 1 47 30 | 24 Feb. (55) . . | 2 Mon. . . | 118-9949 | 3840 | |
| 23 Mar. (82) . . | 2 Mon. . . | 8 0 0 | 15 Mar. (74) . . | 1 Sun. . . | 153-6345 | 3841 | |
| 22 Mar. (82) . . | 3 Tues. . . | 14 12 30 | 3 Mar. (63) . . | 5 Thur. . . | 29-3179 | 3842 | |
| 22 Mar. (81) . . | 4 Wed. . . | 20 25 0 | 22 Mar. (81) . . | 4 Wed. . . | 63-9575 | 3843 | |
| 23 Mar. (82) . . | 6 Fri. . . | 2 37 30 | 12 Mar. (71) . . | 2 Mon. . . | 278-2728 | 3844 | |
| 23 Mar. (82) . . | 0 Sat. . . | 8 50 0 | 1 Mar. (60) . . | 6 Fri. . . | 163-9561 | 3845 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SĀMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3846 | 667 | 802 | 151 | | *744-45 | 17 Subhānu . . . | | ... |
| 3847 | 668 | 803 | 152 | | 745-46 | 18 Tārāṇa . . . | | ... |
| 3848 | 669 | 804 | 153 | | 746-47 | 19 Pārthiva . . . | | 5 Śrāvapa . |
| 3849 | 670 | 805 | 154 | | 747-48 | 20 Vyaya . . . | | ... |
| 3850 | 671 | 806 | 155 | | *748-49 | 21 Sarvajit . . . | | ... |
| 3851 | 672 | 807 | 156 | | 749-50 | 22 Sarvadhārin . . . | | 2 Vaiśākha . |
| 3852 | 673 | 808 | 157 | | 750-51 | 23 Virōdhin . . . | | ... |
| 3853 | 674 | 809 | 158 | | 751-52 | 24 Vikṛita . . . | | 10 Pausha . |
| 3854 | 675 | 810 | 159 | | *752-53 | 25 Khara . . . | | ... |
| 3855 | 676 | 811 | 160 | | 753-54 | 26 Nandana . . . | | ... |
| 3856 | 677 | 812 | 161 | | 754-55 | 27 Vijaya . . . | | 7 Āśvina . |
| 3857 | 678 | 813 | 162 | | 755-56 | 28 Jaya . . . | | ... |
| 3858 | 679 | 814 | 163 | | *756-57 | 29 Manmatha . . . | | ... |
| 3859 | 680 | 815 | 164 | | 757-58 | 30 Durmukha . . . | | 4 Āshāḍha . |
| 3860 | 681 | 816 | 165 | | 758-59 | 31 Hēmalamba . . . | | ... |
| 3861 | 682 | 817 | 166 | | 759-60 | 32 Vilamba . . . | | 12 Phālguna . |
| 3862 | 683 | 818 | 167 | | *760-61 | 33 Vikārin . . . | | ... |
| 3863 | 684 | 819 | 168 | | 761-62 | 34 Śārvarin . . . | | ... |
| 3864 | 685 | 820 | 169 | | 762-63 | 35 Plava . . . | | 9 Mārgaśira . |
| 3865 | 686 | 821 | 170 | | 763-64 | 36 Subhukrit . . . | | ... |
| 3866 | 687 | 822 | 171 | | *764-65 | 37 Sōbhana . . . | | ... |
| 3867 | 688 | 823 | 172 | | 765-66 | 38 Krōdhin . . . | | 5 Śrāvapa . |
| 3868 | 689 | 824 | 173 | | 766-67 | 39 Viśvāvasu . . . | | ... |
| 3869 | 690 | 825 | 174 | | 767-68 | 40 Parābhava . . . | | ... |
| 3870 | 691 | 826 | 175 | | *768-69 | 41 Plavaṅga . . . | | 2 Vaiśākha . |

LXXVI—Contd.

1 Arya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here— <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 22 Mar. (82) . . . | 1 Sun. . . | 15 2 30 | 19 Mar. (79) . . . | 5 Thur. . . | 188-5957 | 3846 |
| 22 Mar. (81) . . . | 2 Mon. . . | 21 15 0 | 8 Mar. (67) . . . | 2 Mon. . . | 64-2790 | 3847 |
| 23 Mar. (82) . . . | 4 Wed. . . | 3 27 30 | 26 Feb. (57) . . . | 0 Sat. . . | 278-5944 | 3848 |
| 23 Mar. (82) . . . | 5 Thur. . . | 9 40 0 | 17 Mar. (76) . . . | 0 Fri. . . | 313-2341 | 3849 |
| 22 Mar. (82) . . . | 6 Fri. . . | 15 52 30 | 5 Mar. (65) . . . | 3 Tues. . . | 188-9173 | 3850 |
| 22 Mar. (81) . . . | 0 Sat. . . | 22 5 0 | 22 Feb. (53) . . . | 0 Sat. . . | 64-6007 | 3851 |
| 23 Mar. (82) . . . | 2 Mon. . . | 4 17 30 | 13 Mar. (72) . . . | 6 Fri. . . | 99-2404 | 3852 |
| 23 Mar. (82) . . . | 3 Tues. . . | 10 30 0 | 3 Mar. (62) . . . | 4 Wed. . . | 313-5556 | 3853 |
| 22 Mar. (82) . . . | 4 Wed. . . | 16 42 30 | 20 Mar. (80) . . . | 2 Mon. . . | 9-5633 | 3854 |
| 22 Mar. (81) . . . | 5 Thur. . . | 22 55 0 | 10 Mar. (69) . . . | 0 Sat. . . | 223-8786 | 3855 |
| 23 Mar. (82) . . . | 0 Sat. . . | 5 7 30 | 27 Feb. (58) . . . | 4 Wed. . . | 99-5620 | 3856 |
| 23 Mar. (82) . . . | 1 Sun. . . | 11 20 0 | 18 Mar. (77) . . . | 3 Tues. . . | 134-2016 | 3857 |
| 22 Mar. (82) . . . | 2 Mon. . . | 17 32 30 | 6 Mar. (66) . . . | 0 Sat. . . | 9-8850 | 3858 |
| 22 Mar. (81) . . . | 3 Tues. . . | 23 45 0 | 24 Feb. (55) . . . | 5 Thur. . . | 224-2003 | 3859 |
| 23 Mar. (82) . . . | 5 Thur. . . | 5 57 30 | 15 Mar. (74) . . . | 4 Wed. . . | 258-8399 | 3860 |
| 23 Mar. (82) . . . | 6 Fri. . . | 12 10 0 | 4 Mar. (63) . . . | 1 Sun. . . | 134-5233 | 3861 |
| 22 Mar. (82) . . . | 0 Sat. . . | 18 22 30 | 22 Mar. (82) . . . | 0 Sat. . . | 169-1628 | 3862 |
| 23 Mar. (82) . . . | 2 Mon. . . | 0 35 0 | 11 Mar. (70) . . . | 4 Wed. . . | 44-8463 | 3863 |
| 23 Mar. (82) . . . | 3 Tues. . . | 6 47 30 | 1 Mar. (60) . . . | 2 Mon. . . | 259-1616 | 3864 |
| 23 Mar. (82) . . . | 4 Wed. . . | 13 0 0 | 20 Mar. (79) . . . | 1 Sun. . . | 293-8012 | 3865 |
| 22 Mar. (82) . . . | 5 Thur. . . | 19 12 30 | 8 Mar. (68) . . . | 5 Thur. . . | 169-4846 | 3866 |
| 23 Mar. (82) . . . | 0 Sat. . . | 1 25 0 | 25 Feb. (56) . . . | 2 Mon. . . | 45-1680 | 3867 |
| 23 Mar. (82) . . . | 1 Sun. . . | 7 37 30 | 16 Mar. (75) . . . | 1 Sun. . . | 79-8076 | 3868 |
| 23 Mar. (82) . . . | 2 Mon. . . | 13 50 0 | 6 Mar. (65) . . . | 6 Fri. . . | 294-1228 | 3869 |
| 22 Mar. (82) . . . | 3 Tues. . . | 20 2 30 | 23 Feb. (54) . . . | 3 Tues. . . | 169-8062 | 3870 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|--|
| Kali. | Saka. | Chaitradi Vikrama. | Meshadi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3871 | 692 | 827 | 176 | | 769-70 | 42 Kilaka . . . | | ... |
| 3872 | 693 | 828 | 177 | | 770-71 | 43 Saumya . . . | | 10 Pausha . |
| 3873 | 694 | 829 | 178 | | 771-72 | 44 Sādharāṇa . . . | | ... |
| 3874 | 695 | 830 | 179 | | *772-73 | 45 Virōdhakṛit . . . | | ... |
| 3875 | 696 | 831 | 180 | | 773-74 | 46 Paridhāvin . . . | | 7 Āśvina . |
| 3876 | 697 | 832 | 181 | | 774-75 | 47 Pramōdin . . . | | ... |
| 3877 | 698 | 833 | 182 | | 775-76 | 48 Ānanda . . . | | ... |
| 3878 | 699 | 834 | 183 | | *776-77 | 49 Rākshasa . . . | | 3 Jyēshtha . |
| 3879 | 700 | 835 | 184 | | 777-78 | 50 Anala . . . | | ... |
| 3880 | 701 | 836 | 185 | | 778-79 | 51 Pīṅgala . . . | | 12 Phālguna . |
| 3881 | 702 | 837 | 186 | | 779-80 | 52 Kālayukta . . . | | ... |
| 3882 | 703 | 838 | 187 | | *780-81 | 53 Siddhārthin . . . | | ... |
| 3883 | 704 | 839 | 188 | | 781-82 | 54 Raudra . . . | | 8 Kārttika . |
| 3884 | 705 | 840 | 189 | | 782-83 | 55 Durmati . . . | | ... |
| 3885 | 706 | 841 | 190 | | 783-84 | 56 Dundubhi . . . | | ... |
| 3886 | 707 | 842 | 191 | | *784-85 | 57 Rudhirōdgārin . . . | | 5 Śrāvaṇa . |
| 3887 | 708 | 843 | 192 | | 785-86 | 58 Raktāksha . . . | | ... |
| 3888 | 709 | 844 | 193 | | 786-87 | 59 Krōdhana . . . | | ... |
| 3889 | 710 | 845 | 194 | | 787-88 | 60 Kshaya . . . | | 1 Chaitra . |
| 3890 | 711 | 846 | 195 | | *788-89 | 1 Prabhava . . . | | ... |
| 3891 | 712 | 847 | 196 | | 789-90 | 2 Vibhava . . . | | 10 Pausha . |
| 3892 | 713 | 848 | 197 | | 790-91 | 3 Śukla . . . | | ... |
| 3893 | 714 | 849 | 198 | | 791-92 | 4 Pramōda . . . | | ... |
| 3894 | 715 | 850 | 199 | | *792-93 | 5 Prajāpati . . . | | 7 Āśvina† . |
| 3895 | 716 | 851 | 200 | | 793-94 | 6 Āṅgiras . . . | | ... |

† By the "Indian Calendar" 6 Bhādrapada was intercalated.

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| Oriental Society, The Hague, Holland. | University Library, Prague. |
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| Royal Society of Antiquaries, Edinburgh. | North China Branch of the Royal Asiatic Society, Shanghai. |
| Royal Society of Antiquaries, Ireland, 17, Highfield Road, Rathgar, Dublin. | Smithsonian Institution, Washington, D. C., U. S. A. |
| Institut de France, Paris. | Harvard University Library, Cambridge, Boston, Massachusetts, U. S. A. |
| Conservatoire du Musée Guimet, Paris. | Vajiravudh National Library, Bangkok. |
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| University Library, ditto. | Bangiya Sahitya Parishad Sabha, Calcutta. |
| Presidency College Library, ditto. | Chaitanya Library, 4-1, Beadon Street, Calcutta. |
| Christian College Library, ditto. | Mahabodhi Society, Baniapooker Lane, Calcutta. |
| Literary and Scientific Society, ditto. | Scottish Churches College Library, Calcutta. |
| Secretariat Library, Bombay. | Hooghly College Library, Chinsurah. |
| University Library, ditto. | Chittagong College Library, Chittagong. |
| Anandashram Sanskrit Series, Poona City. | Rajshahi College Library, Rajshahi. |
| Bombay Branch of the Royal Asiatic Society, Bombay. | Provincial Library, Dacca. |
| Secretariat Library, Calcutta. | Varendra Research Society, Rajshahi. |
| Indian Museum, ditto. | Secretariat Library, Bihar and Orissa. |
| University Library, ditto. | Patna College Library, Bankipore. |
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| Prince of Wales Museum Library, Bombay. | |

LXXVI—*Contd.*

1 Arya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|-------------------------------------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here—t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 23 Mar. (82) . . | 5 Thur. . . | 2 15 0 | 13 Mar. (72) . . | 2 Mon. . . | 204-4459 | 3871 |
| 23 Mar. (82) . . | 6 Fri. . . | 8 27 30 | 2 Mar. (61) . . | 6 Fri. . . | 80-1292 | 3872 |
| 23 Mar. (82) . . | 0 Sat. . . | 14 40 0 | 21 Mar. (80) . . | 5 Thur. . . | 114-7688 | 3873 |
| 22 Mar. (82) . . | 1 Sun. . . | 20 52 30 | 10 Mar. (70) . . | 3 Tues. . . | 329-0841 | 3874 |
| 23 Mar. (82) . . | 3 Tues. . . | 3 5 0 | 27 Feb. (58) . . | 0 Sat. . . | 204-7676 | 3875 |
| 23 Mar. (82) . . | 4 Wed. . . | 9 17 30 | 18 Mar. (77) . . | 6 Fri. . . | 239-4071 | 3876 |
| 23 Mar. (82) . . | 5 Thur. . . | 15 30 0 | 7 Mar. (66) . . | 3 Tues. . . | 115-0904 | 3877 |
| 22 Mar. (82) . . | 6 Fri. . . | 21 42 30 | 25 Feb. (56) . . | 1 Sun. . . | 329-4057 | 3878 |
| 23 Mar. (82) . . | 1 Sun. . . | 3 55 0 | 14 Mar. (73) . . | 6 Fri. . . | 25-4134 | 3879 |
| 23 Mar. (82) . . | 2 Mon. . . | 10 7 30 | 4 Mar. (63) . . | 4 Wed. . . | 239-7288 | 3880 |
| 23 Mar. (82) . . | 3 Tues. . . | 16 20 0 | 23 Mar. (82) . . | 3 Tues. . . | 274-3682 | 3881 |
| 22 Mar. (82) . . | 4 Wed. . . | 22 32 30 | 11 Mar. (71) . . | 0 Sat. . . | 150-0517 | 3882 |
| 23 Mar. (82) . . | 6 Fri. . . | 4 45 0 | 28 Feb. (59) . . | 4 Wed. . . | 25-7351 | 3883 |
| 23 Mar. (82) . . | 0 Sat. . . | 10 57 30 | 19 Mar. (78) . . | 3 Tues. . . | 60-3747 | 3884 |
| 23 Mar. (82) . . | 1 Sun. . . | 17 10 0 | 9 Mar. (68) . . | 1 Sun. . . | 274-6900 | 3885 |
| 22 Mar. (82) . . | 2 Mon. . . | 23 22 30 | 26 Feb. (57) . . | 5 Thur. . . | 150-3734 | 3886 |
| 23 Mar. (82) . . | 4 Wed. . . | 5 35 0 | 16 Mar. (75) . . | 4 Wed. . . | 185-0130 | 3887 |
| 23 Mar. (82) . . | 5 Thur. . . | 11 47 30 | 5 Mar. (64) . . | 1 Sun. . . | 60-6963 | 3888 |
| 23 Mar. (82) . . | 6 Fri. . . | 18 0 0 | 23 Feb. (54) . . | 6 Fri. . . | 275-0116 | 3889 |
| 23 Mar. (83) . . | 1 Sun. . . | 0 12 30 | 13 Mar. (73) . . | 5 Thur. . . | 309-6513 | 3890 |
| 23 Mar. (82) . . | 2 Mon. . . | 6 25 0 | 2 Mar. (61) . . | 2 Mon. . . | 185-3346 | 3891 |
| 23 Mar. (82) . . | 3 Tues. . . | 12 37 30 | 21 Mar. (80) . . | 1 Sun. . . | 219-9743 | 3892 |
| 23 Mar. (82) . . | 4 Wed. . . | 18 50 0 | 10 Mar. (69) . . | 5 Thur. . . | 95-6576 | 3893 |
| 23 Mar. (83) . . | 6 Fri. . . | 1 2 30 | 28 Feb. (59) . . | 3 Tues. . . | 309-9730 | 3894 |
| 23 Mar. (82) . . | 0 Sat. . . | 7 15 0 | 17 Mar. (76) . . | 1 Sun. . . | 5-9807 | 3895 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3896 | 717 | 852 | 201 | | 794-95 | 7 Śrīmukha . . . | | ... |
| 3897 | 718 | 853 | 202 | | 795-96 | 8 Bhāva . . . | | 3 Jyēshṭha . |
| 3898 | 719 | 854 | 203 | | *796-97 | 9 Yuvan . . . | | ... |
| 3899 | 720 | 855 | 204 | | 797-98 | 10 Dhātṛi . . . | | 12 Phālguna . |
| 3900 | 721 | 856 | 205 | | 798-99 | 11 Īvara . . . | | ... |
| 3901 | 722 | 857 | 206 | | 799-800 | 12 Bahudhānya . . | | ... |
| 3902 | 723 | 858 | 207 | | *800-01 | 13 Pramāthin . . | | 8 Kārttika . |
| 3903 | 724 | 859 | 208 | | 801-02 | 14 Vikrama . . . | | ... |
| 3904 | 725 | 860 | 209 | | 802-03 | 15 Vṛisha . . . | | ... |
| 3905 | 726 | 861 | 210 | | 803-04 | 16 Chitrabhānu . . | | 5 Śrāvaṇa . |
| 3906 | 727 | 862 | 211 | | *804-05 | 17 Subhānu . . . | | ... |
| 3907 | 728 | 863 | 212 | | 805-06 | 18 Tāraka . . . | | ... |
| 3908 | 729 | 864 | 213 | | 806-07 | 19 Pārthiva . . . | | 1 Chaitra . |
| 3909 | 730 | 865 | 214 | | 807-08 | 20 Vyaya . . . | | ... |
| 3910 | 731 | 866 | 215 | | *808-09 | 21 Sarvajit . . . | | 10 Pausa . |
| 3911 | 732 | 867 | 216 | | 809-10 | 22 Sarvadbārin . . | | ... |
| 3912 | 733 | 868 | 217 | | 810-11 | 23 Virōdhin . . . | | ... |
| 3913 | 734 | 869 | 218 | | 811-12 | 24 Vikṛita . . . | | 6 Bhādrapada. |
| 3914 | 735 | 870 | 219 | | *812-13 | 25 Khara . . . | | ... |
| 3915 | 736 | 871 | 220 | | 813-14 | 26 Nandana . . . | | ... |
| 3916 | 737 | 872 | 221 | | 814-15 | 27 Vijaya . . . | | 3 Jyēshṭha . |
| 3917 | 738 | 873 | 222 | | 815-16 | 28 Jaya . . . | | ... |
| 3918 | 739 | 874 | 223 | | *816-17 | 29 Manmatha . . . | | 11 Māgha . |
| 3919 | 740 | 875 | 224 | | 817-18 | 30 Darmukha . . | | ... |
| 3920 | 741 | 876 | 225 | | 818-19 | 31 Hēmalamba . . | | ... |

LXXVI—Contd.

1 Arya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|-------------------------------------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here—t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 23 Mar. (82) . . | 1 Sun. . | 13 27 30 | 7 Mar. (66) . . | 6 Fri. . | 220-2959 | 3896 |
| 23 Mar. (82) . . | 2 Mon. . | 19 40 0 | 24 Feb. (55) . . | 3 Tues. . | 95-9793 | 3897 |
| 23 Mar. (83) . . | 4 Wed. . | 1 52 30 | 14 Mar. (74) . . | 2 Mon. . | 130-6189 | 3898 |
| 23 Mar. (82) . . | 5 Thur. . | 8 5 0 | 3 Mar. (62) . . | 6 Fri. . | 6-3023 | 3899 |
| 23 Mar. (82) . . | 6 Fri. . | 14 17 30 | 22 Mar. (81) . . | 5 Thur. . | 40-9419 | 3900 |
| 23 Mar. (82) . . | 0 Sat. . | 20 30 0 | 12 Mar. (71) . . | 3 Tues. . | 255-2572 | 3901 |
| 23 Mar. (83) . . | 2 Mon. . | 2 42 30 | 29 Feb. (60) . . | 0 Sat. . | 130-9406 | 3902 |
| 23 Mar. (82) . . | 3 Tues. . | 8 55 0 | 19 Mar. (78) . . | 6 Fri. . | 165-5802 | 3903 |
| 23 Mar. (82) . . | 4 Wed. . | 15 7 30 | 8 Mar. (67) . . | 3 Tues. . | 41-2636 | 3904 |
| 23 Mar. (82) . . | 5 Thur. . | 21 20 0 | 26 Feb. (57) . . | 1 Sun. . | 255-5789 | 3905 |
| 23 Mar. (83) . . | 0 Sat. . | 3 32 30 | 16 Mar. (76) . . | 0 Sat. . | 290-2185 | 3906 |
| 23 Mar. (82) . . | 1 Sun. . | 9 45 0 | 5 Mar. (64) . . | 4 Wed. . | 165-9018 | 3907 |
| 23 Mar. (82) . . | 2 Mon. . | 15 57 30 | 22 Feb. (53) . . | 1 Sun. . | 41-5852 | 3908 |
| 23 Mar. (82) . . | 3 Tues. . | 22 10 0 | 13 Mar. (72) . . | 0 Sat. . | 76-2248 | 3909 |
| 23 Mar. (83) . . | 5 Thur. . | 4 22 30 | 2 Mar. (62) . . | 5 Thur. . | 290-5401 | 3910 |
| 23 Mar. (82) . . | 6 Fri. . | 10 35 0 | 21 Mar. (80) . . | 4 Wed. . | 325-1798 | 3911 |
| 23 Mar. (82) . . | 0 Sat. . | 16 47 30 | 10 Mar. (69) . . | 1 Sun. . | 200-8031 | 3912 |
| 23 Mar. (82) . . | 1 Sun. . | 23 0 0 | 27 Feb. (58) . . | 5 Thur. . | 76-5465 | 3913 |
| 23 Mar. (83) . . | 3 Tues. . | 5 12 30 | 17 Mar. (77) . . | 4 Wed. . | 111-1862 | 3914 |
| 23 Mar. (82) . . | 4 Wed. . | 11 25 0 | 7 Mar. (66) . . | 2 Mon. . | 325-5013 | 3915 |
| 23 Mar. (82) . . | 5 Thur. . | 17 37 30 | 24 Feb. (55) . . | 6 Fri. . | 201-1847 | 3916 |
| 23 Mar. (82) . . | 6 Fri. . | 23 50 0 | 15 Mar. (74) . . | 5 Thur. . | 235-8214 | 3917 |
| 23 Mar. (83) . . | 1 Sun. . | 6 2 30 | 3 Mar. (63) . . | 2 Mon. . | 111-5078 | 3918 |
| 23 Mar. (82) . . | 2 Mon. . | 12 15 0 | 22 Mar. (81) . . | 1 Sun. . | 146-1473 | 3919 |
| 23 Mar. (82) . . | 3 Tues. . | 18 27 30 | 11 Mar. (70) . . | 5 Thur. . | 21-8307 | 3920 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|---------------------------------|---------|---------|------------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Māhādī solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3921 | 742 | 877 | 226 | | 819-20 | 32 Vilamba† . . . | | 8 Kārttika . |
| 3922 | 743 | 878 | 227 | | *820-21 | 34 Śirvarin . . . | | ... |
| 3923 | 744 | 879 | 228 | | 821-22 | 35 Plava . . . | | ... |
| 3924 | 745 | 880 | 229 | | 822-23 | 36 Śubhakṛit . . . | | 4 Āshādha . |
| 3925 | 746 | 881 | 230 | | 823-24 | 37 Śobhana . . . | | ... |
| 3926 | 747 | 882 | 231 | | *824-25 | 38 Krōdhin . . . | | ... |
| 3927 | 748 | 883 | 232 | 0-1 | 825-26 | 39 Viśvāvasu . . . | | 1 Chaitra . |
| 3928 | 749 | 884 | 233 | 1-2 | 826-27 | 40 Parābhava . . . | | ... |
| 3929 | 750 | 885 | 234 | 2-3 | 827-28 | 41 Plavaṅga . . . | | 10 Pausa |
| 3930 | 751 | 886 | 235 | 3-4 | *828-29 | 42 Kilaka . . . | | ... |
| 3931 | 752 | 887 | 236 | 4-5 | 829-30 | 43 Saumya . . . | | ... |
| 3932 | 753 | 888 | 237 | 5-6 | 830-31 | 44 Sādhārāṇa . . . | | 6 Bhādrapada. |
| 3933 | 754 | 889 | 238 | 6-7 | 831-32 | 45 Virōdhakṛit . . . | | ... |
| 3934 | 755 | 890 | 239 | 7-8 | *832-33 | 46 Paridhāvin . . . | | ... |
| 3935 | 756 | 891 | 240 | 8-9 | 833-34 | 47 Pramādin . . . | | 3 Jyēṣṭha . |
| 3936 | 757 | 892 | 241 | 9-10 | 834-35 | 48 Ānanda . . . | | ... |
| 3937 | 758 | 893 | 242 | 10-11 | 835-36 | 49 Rākshasa . . . | | 11 Māgha . |
| 3938 | 759 | 894 | 243 | 11-12 | *836-37 | 50 Anala . . . | | ... |
| 3939 | 760 | 895 | 244 | 12-13 | 837-38 | 51 Piṅgala . . . | | ... |
| 3940 | 761 | 896 | 245 | 13-14 | 838-39 | 52 Kālayukta . . . | | 8 Kārttika . |
| 3941 | 762 | 897 | 246 | 14-15 | 839-40 | 53 Siddhārthin . . . | | ... |
| 3942 | 763 | 898 | 247 | 15-16 | *840-41 | 54 Raudra . . . | | ... |
| 3943 | 764 | 899 | 248 | 16-17 | 841-42 | 55 Durmati . . . | | 4 Āshādha . |
| 3944 | 765 | 900 | 249 | 17-18 | 842-43 | 56 Dundubhi . . . | | ... |
| 3945 | 766 | 901 | 250 | 18-19 | 843-44 | 57 Rudhirōdgārin . . . | | ... |

† By both mean and true systems 33 Vikārin was expunged.

LXXVI—*Contd.*

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and Month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A. D. | Week-day. | a (here— t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| 24 Mar. (83) . . | 5 Thur. . | 11. M. S.
0 40 0 | 1 Mar. (60) . . | 3 Tues. . | 286-1460 | 3921 |
| 23 Mar. (83) . . | 6 Fri. . | 6 52 30 | 19 Mar. (79) . . | 2 Mon. . | 270-7856 | 3922 |
| 23 Mar. (82) . . | 0 Sat. . | 13 5 0 | 8 Mar. (67) . . | 6 Fri. . | 146-4690 | 3923 |
| 23 Mar. (82) . . | 1 Sun. . | 19 17 30 | 25 Feb. (56) . . | 3 Tues. . | 22-1524 | 3924 |
| 24 Mar. (83) . . | 3 Tues. . | 1 30 0 | 16 Mar. (75) . . | 2 Mon. . | 56-7920 | 3925 |
| 23 Mar. (83) . . | 4 Wed. . | 7 42 30 | 5 Mar. (65) . . | 0 Sat. . | 271-1073 | 3926 |
| 23 Mar. (82) . . | 5 Thur. . | 13 55 0 | 22 Feb. (53) . . | 4 Wed. . | 146-7906 | 3927 |
| 23 Mar. (82) . . | 6 Fri. . | 20 7 30 | 13 Mar. (72) . . | 3 Tues. . | 181-4303 | 3928 |
| 24 Mar. (83) . . | 1 Sun. . | 2 20 0 | 2 Mar. (61) . . | 0 Sat. . | 57-1137 | 3929 |
| 23 Mar. (83) . . | 2 Mon. . | 8 32 30 | 20 Mar. (80) . . | 6 Fri. . | 91-7533 | 3930 |
| 23 Mar. (82) . . | 3 Tues. . | 14 45 0 | 10 Mar. (69) . . | 4 Wed. . | 306-0686 | 3931 |
| 23 Mar. (82) . . | 4 Wed. . | 20 57 30 | 27 Feb. (58) . . | 1 Sun. . | 181-7519 | 3932 |
| 24 Mar. (83) . . | 6 Fri. . | 3 10 0 | 18 Mar. (77) . . | 0 Sat. . | 216-3916 | 3933 |
| 23 Mar. (83) . . | 0 Sat. . | 9 22 30 | 6 Mar. (66) . . | 4 Wed. . | 92-0749 | 3934 |
| 23 Mar. (82) . . | 1 Sun. . | 15 35 0 | 24 Feb. (55) . . | 2 Mon. . | 306-3902 | 3935 |
| 23 Mar. (82) . . | 2 Mon. . | 21 47 30 | 14 Mar. (73) . . | 0 Sat. . | 2-3979 | 3936 |
| 24 Mar. (83) . . | 4 Wed. . | 4 0 0 | 4 Mar. (63) . . | 5 Thur. . | 216-7132 | 3937 |
| 23 Mar. (83) . . | 5 Thurs . | 10 12 30 | 22 Mar. (82) . . | 4 Wed. . | 251-3528 | 3938 |
| 23 Mar. (82) . . | 6 Fri. . | 16 25 0 | 11 Mar. (70) . . | 1 Sun. . | 127-0362 | 3939 |
| 23 Mar. (82) . . | 0 Sat. . | 22 37 30 | 28 Feb. (59) . . | 5 Thur. . | 2-7176 | 3940 |
| 24 Mar. (83) . . | 2 Mon. . | 4 50 0 | 19 Mar. (78) . . | 4 Wed. . | 37-3592 | 3941 |
| 23 Mar. (83) . . | 3 Tues. . | 11 2 30 | 8 Mar. (68) . . | 2 Mon. . | 251-6745 | 3942 |
| 23 Mar. (82) . . | 4 Wed. . | 17 15 0 | 25 Feb. (56) . . | 6 Fri. . | 127-3579 | 3943 |
| 23 Mar. (82) . . | 5 Thurs . | 23 17 30 | 16 Mar. (75) . . | 5 Thur. . | 161-9975 | 3944 |
| 24 Mar. (83) . . | 0 Sat. . | 5 40 0 | 5 Mar. (64) . . | 2 Mon. . | 37-6809 | 3945 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mūshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3946 | 767 | 902 | 251 | 19-20 | *844-45 | 58 Raktāksha . . . | . | 1 Chaitra . . . |
| 3947 | 768 | 903 | 252 | 20-21 | 845-46 | 59 Krōdhana . . . | . | ... |
| 3948 | 769 | 904 | 253 | 21-22 | 846-47 | 60 Kshaya . . . | . | 9 Mārgasīra . . . |
| 3949 | 770 | 905 | 254 | 22-23 | 847-48 | 1 Prabhava . . . | . | ... |
| 3950 | 771 | 906 | 255 | 23-24 | *848-49 | 2 Vibhava . . . | . | ... |
| 3951 | 772 | 907 | 256 | 24-25 | 849-50 | 3 Śukla . . . | . | 6 Bhādrapada . . . |
| 3952 | 773 | 908 | 257 | 25-26 | 850-51 | 4 Pramōda . . . | . | ... |
| 3953 | 774 | 909 | 258 | 26-27 | 851-52 | 5 Prajāpati . . . | . | ... |
| 3954 | 775 | 910 | 259 | 27-28 | *852-53 | 6 Aṅgīras . . . | . | 2 Vaiśākha . . . |
| 3955 | 776 | 911 | 260 | 28-29 | 853-54 | 7 Śrīnukha . . . | . | ... |
| 3956 | 777 | 912 | 261 | 29-30 | 854-55 | 8 Bhāva . . . | . | 11 Māgha . . . |
| 3957 | 778 | 913 | 262 | 30-31 | 855-56 | 9 Yuvan . . . | . | ... |
| 3958 | 779 | 914 | 263 | 31-32 | *856-57 | 10 Dhātṛi . . . | . | ... |
| 3959 | 780 | 915 | 264 | 32-33 | 857-58 | 11 Īśvara . . . | . | 7 Āśvin . . . |
| 3960 | 781 | 916 | 265 | 33-34 | 858-59 | 12 Bahudhānya . . . | . | ... |
| 3961 | 782 | 917 | 266 | 34-35 | 859-60 | 13 Pramāthin . . . | . | ... |
| 3962 | 783 | 918 | 267 | 35-36 | *860-61 | 14 Vikrama . . . | . | 4 Āśhāḍha . . . |
| 3963 | 784 | 919 | 268 | 36-37 | 861-62 | 15 Vṛiṣha . . . | . | ... |
| 3964 | 785 | 920 | 269 | 37-38 | 862-63 | 16 Chitrabhānu . . . | . | 12 Phālguna . . . |
| 3965 | 786 | 921 | 270 | 38-39 | 863-64 | 17 Subhānu . . . | . | ... |
| 3966 | 787 | 922 | 271 | 39-40 | *864-65 | 18 Tāraṇa . . . | . | ... |
| 3967 | 788 | 923 | 272 | 40-41 | 865-66 | 19 Pārthiva . . . | . | 9 Mārgasīra . . . |
| 3968 | 789 | 924 | 273 | 41-42 | 866-67 | 20 Vyaya . . . | . | ... |
| 3969 | 790 | 925 | 274 | 42-43 | 867-68 | 21 Sarvajit . . . | . | ... |
| 3970 | 791 | 926 | 275 | 43-44 | *868-69 | 22 Sarvadhārin . . . | . | 6 Bhādrapada.† |

† By the " Indian Calendar " 5 Śrāvaṇa was intercalated.

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here $\pm t$, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 23 Mar. (83) . . . | 1 Sun. . . | 11 52 30 | 23 Feb. (54) . . . | 0 Sat. . . | 251-9060 | 3946 |
| 23 Mar. (82) . . . | 2 Mon. . . | 18 5 0 | 13 Mar. (72) . . . | 6 Fri. . . | 286-6357 | 3947 |
| 24 Mar. (83) . . . | 4 Wed. . . | 0 17 30 | 2 Mar. (61) . . . | 3 Tues. . . | 162-3191 | 3948 |
| 24 Mar. (83) . . . | 5 Thur. . . | 6 30 0 | 21 Mar. (80) . . . | 2 Mon. . . | 196-6588 | 3949 |
| 23 Mar. (83) . . . | 6 Fri. . . | 12 42 30 | 9 Mar. (69) . . . | 6 Fri. . . | 72-6421 | 3950 |
| 23 Mar. (82) . . . | 0 Sat. . . | 18 55 0 | 27 Feb. (58) . . . | 4 Wed. . . | 286-9573 | 3951 |
| 24 Mar. (83) . . . | 2 Mon. . . | 1 7 30 | 18 Mar. (77) . . . | 3 Tues. . . | 321-5970 | 3952 |
| 24 Mar. (83) . . . | 3 Tues. . . | 7 20 0 | 7 Mar. (66) . . . | 0 Sat. . . | 197-2803 | 3953 |
| 23 Mar. (83) . . . | 4 Wed. . . | 13 32 30 | 24 Feb. (55) . . . | 4 Wed. . . | 72-9637 | 3954 |
| 23 Mar. (82) . . . | 5 Thur. . . | 19 45 0 | 14 Mar. (73) . . . | 3 Tues. . . | 107-6033 | 3955 |
| 24 Mar. (83) . . . | 0 Sat. . . | 1 57 30 | 4 Mar. (63) . . . | 1 Sun. . . | 321-0186 | 3956 |
| 24 Mar. (83) . . . | 1 Sun. . . | 8 10 0 | 22 Mar. (81) . . . | 6 Fri. . . | 17-9263 | 3957 |
| 23 Mar. (83) . . . | 2 Mon. . . | 14 22 30 | 11 Mar. (71) . . . | 4 Wed. . . | 232-2416 | 3958 |
| 23 Mar. (82) . . . | 3 Tues. . . | 20 25 0 | 28 Feb. (59) . . . | 1 Sun. . . | 107-9250 | 3959 |
| 24 Mar. (83) . . . | 5 Thur. . . | 2 47 30 | 19 Mar. (78) . . . | 0 Sat. . . | 142-5646 | 3960 |
| 24 Mar. (83) . . . | 6 Fri. . . | 9 0 0 | 8 Mar. (67) . . . | 4 Wed. . . | 18-2480 | 3961 |
| 23 Mar. (83) . . . | 0 Sat. . . | 15 12 30 | 26 Feb. (57) . . . | 2 Mon. . . | 232-5633 | 3962 |
| 23 Mar. (82) . . . | 1 Sun. . . | 21 25 0 | 16 Mar. (75) . . . | 1 Sun. . . | 267-2029 | 3963 |
| 24 Mar. (83) . . . | 3 Tues. . . | 3 37 30 | 5 Mar. (64) . . . | 5 Thur. . . | 142-8863 | 3964 |
| 24 Mar. (83) . . . | 4 Wed. . . | 9 50 0 | 24 Mar. (83) . . . | 4 Wed. . . | 177-5259 | 3965 |
| 23 Mar. (83) . . . | 5 Thur. . . | 16 2 30 | 12 Mar. (72) . . . | 1 Sun. . . | 53-2093 | 3966 |
| 23 Mar. (82) . . . | 6 Fri. . . | 22 15 0 | 2 Mar. (61) . . . | 6 Fri. . . | 267-5245 | 3967 |
| 24 Mar. (83) . . . | 1 Sun. . . | 4 27 30 | 21 Mar. (80) . . . | 5 Thur. . . | 302-1642 | 3968 |
| 24 Mar. (83) . . . | 2 Mon. . . | 10 40 0 | 10 Mar. (69) . . . | 2 Mon. . . | 177-8476 | 3969 |
| 23 Mar. (83) . . . | 3 Tues. . . | 16 52 30 | 27 Feb. (58) . . . | 6 Fri. . . | 53-5309 | 3970 |



TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3971 | 792 | 927 | 276 | 44-45 | 869-70 | 23 Virōdhin . . . | | ... |
| 3972 | 793 | 928 | 277 | 45-46 | 870-71 | 24 Vikṛita . . . | | ... |
| 3973 | 794 | 929 | 278 | 46-47 | 871-72 | 25 Khara . . . | | 2 Vaiśākha . |
| 3974 | 795 | 930 | 279 | 47-48 | *872-73 | 26 Nandana . . . | | ... |
| 3975 | 796 | 931 | 280 | 48-49 | 873-74 | 27 Vijaya . . . | | 11 Māgha . |
| 3976 | 797 | 932 | 281 | 49-50 | 874-75 | 28 Jaya . . . | | ... |
| 3977 | 798 | 933 | 282 | 50-51 | 875-76 | 29 Manmatha . . . | | ... |
| 3978 | 799 | 934 | 283 | 51-52 | *876-77 | 30 Durmukha . . . | | 7 Āsvina . |
| 3979 | 800 | 935 | 284 | 52-53 | 877-78 | 31 Hēmalamba . . . | | ... |
| 3980 | 801 | 936 | 285 | 53-54 | 878-79 | 32 Vilamba . . . | | ... |
| 3981 | 802 | 937 | 286 | 54-55 | 879-80 | 33 Vikārin . . . | | 4 Āshāḍha . |
| 3982 | 803 | 938 | 287 | 55-56 | *880-81 | 34 Śārvarin . . . | | ... |
| 3983 | 804 | 939 | 288 | 56-57 | 881-82 | 35 Plava . . . | | 12 Phālguna . |
| 3984 | 805 | 940 | 289 | 57-58 | 882-83 | 36 Subhakṛit . . . | | ... |
| 3985 | 806 | 941 | 290 | 58-59 | 883-84 | 37 Sōbhana . . . | | ... |
| 3986 | 807 | 942 | 291 | 59-60 | *884-85 | 38 Krōdhin . . . | | 9 Mārgaśīra . |
| 3987 | 808 | 943 | 292 | 60-61 | 885-86 | 39 Viśvāvasu . . . | | ... |
| 3988 | 809 | 944 | 293 | 61-62 | 886-87 | 40 Parābhava . . . | | ... |
| 3989 | 810 | 945 | 294 | 62-63 | 887-88 | 41 Plavaṅga . . . | | 5 Śrāvaṇa . |
| 3990 | 811 | 946 | 295 | 63-64 | *888-89 | 42 Kilaka . . . | | ... |
| 3991 | 812 | 947 | 296 | 64-65 | 889-90 | 43 Saumya . . . | | ... |
| 3992 | 813 | 948 | 297 | 65-66 | 890-91 | 44 Sādhāraṇa . . . | | 2 Vaiśākha . |
| 3993 | 814 | 949 | 298 | 66-67 | 891-92 | 45 Virōdhakṛit . . . | | ... |
| 3994 | 815 | 950 | 299 | 67-68 | *892-93 | 46 Paridhāvin . . . | | 10 Pausa . |
| 3995 | 816 | 951 | 300 | 68-69 | 893-94 | 47 Pramādin . . . | | ... |

LXXVI—*contd.*

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|--|-------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year.] |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 23 Mar. (82) . | 4 Wed. . | 23 5 0 | 17 Mar. (76) . | 5 Thur. . | 88-1705 | 3971 |
| 24 Mar. (83) . | 6 Fri. . | 5 17 30 | 7 Mar. (86) . | 3 Tues. . | 302-4858 | 3972 |
| 24 Mar. (83) . | 0 Sat. . | 11 30 0 | 24 Feb. (55) . | 0 Sat. . | 178-1692 | 3973 |
| 23 Mar. (83) . | 1 Sun. . | 17 42 30 | 14 Mar. (74) . | 6 Fri. . | 212-8088 | 3974 |
| 23 Mar. (82) . | 2 Mon. . | 23 55 0 | 3 Mar. (62) . | 3 Tues. . | 88-4922 | 3975 |
| 24 Mar. (83) . | 4 Wed. . | 6 7 30 | 22 Mar. (81) . | 2 Mon. . | 123-1318 | 3976 |
| 24 Mar. (83) . | 5 Thur. . | 12 20 0 | 11 Mar. (70) . | 6 Fri. . | 9998-8151† | 3977 |
| 23 Mar. (83) . | 6 Fri. . | 18 32 30 | 29 Feb. (60) . | 4 Wed. . | 213-1304 | 3978 |
| 24 Mar. (83) . | 1 Sun. . | 0 45 0 | 19 Mar. (78) . | 3 Tues. . | 247-7700 | 3979 |
| 24 Mar. (83) . | 2 Mon. . | 6 57 30 | 8 Mar. (67) . | 0 Sat. . | 123-4535 | 3980 |
| 24 Mar. (83) . | 3 Tues. . | 13 10 0 | 25 Feb. (59) . | 4 Wed. . | 9999-1368† | 3981 |
| 23 Mar. (83) . | 4 Wed. . | 19 22 30 | 15 Mar. (75) . | 3 Tues. . | 33-7764 | 3982 |
| 24 Mar. (83) . | 6 Fri. . | 1 35 0 | 5 Mar. (64) . | 1 Sun. . | 248-0917 | 3983 |
| 24 Mar. (83) . | 0 Sat. . | 7 47 30 | 24 Mar. (83) . | 0 Sat. . | 282-7313 | 3984 |
| 24 Mar. (83) . | 1 Sun. . | 14 0 0† | 13 Mar. (72) . | 4 Wed. . | 158-4147 | 3985 |
| 22 Mar. (83) . | 2 Mon. . | 20 12 30 | 1 Mar. (61) . | 1 Sun. . | 34-0980 | 3986 |
| 24 Mar. (83) . | 4 Wed. . | 2 25 0 | 20 Mar. (79) . | 0 Sat. . | 68-7377 | 3987 |
| 24 Mar. (83) . | 5 Thur. . | 8 37 30 | 10 Mar. (69) . | 5 Thur. . | 283-0530 | 3988 |
| 24 Mar. (83) . | 6 Fri. . | 14 50 0 | 27 Feb. (58) . | 2 Mon. . | 158-7364 | 3989 |
| 23 Mar. (83) . | 0 Sat. . | 21 2 30 | 17 Mar. (77) . | 1 Sun. . | 193-3760 | 3990 |
| 24 Mar. (83) . | 2 Mon. . | 3 15 0 | 6 Mar. (65) . | 5 Thur. . | 69-0594 | 3991 |
| 24 Mar. (83) . | 3 Tues. . | 9 27 30 | 24 Feb. (55) . | 3 Tues. . | 283-3746 | 3992 |
| 24 Mar. (83) . | 4 Wed. . | 15 40 0 | 15 Mar. (74) . | 2 Mon. . | 318-0143 | 3993 |
| 23 Mar. (83) . | 5 Thur. . | 21 52 30 | 3 Mar. (63) . | 6 Fri. . | 193-6976 | 3994 |
| 24 Mar. (83) . | 0 Sat. . | 4 5 0 | 22 Mar. (81) . | 5 Thur. . | 228-3372 | 3995 |

† As a mean tithi Chaitra sukla 1 was suppressed. The civil day corresponding to it, i.e., the first day of the mean luni-solar year, was as given in cols. 19, 20.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|--|
| Kal. | Saka. | Chaitrādi Vikrama. | Meshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3996 | 817 | 952 | 301 | 69-70 | 894-95 | 48 Ānanda . . . | | ... |
| 3997 | 818 | 953 | 302 | 70-71 | 895-96 | 49 Rākshasa . . . | | 7 Āśvina . |
| 3998 | 819 | 954 | 303 | 71-72 | *896-97 | 50 Anala . . . | | ... |
| 3999 | 820 | 955 | 304 | 72-73 | 897-98 | 51 Pīngala . . . | | ... |
| 4000 | 821 | 956 | 305 | 73-74 | 898-99 | 52 Kālayukta . . . | | 3 Jyēshṭha . |
| 4001 | 822 | 957 | 306 | 74-75 | 899-900 | 53 Siddhārthin . . . | | ... |
| 4002 | 823 | 958 | 307 | 75-76 | *900-01 | 54 Raudra . . . | | 12 Phālguna . |
| 4003 | 824 | 959 | 308 | 76-77 | 901-02 | 55 Durmati . . . | | ... |
| 4004 | 825 | 960 | 309 | 77-78 | 902-03 | 56 Dundubhi . . . | | ... |
| 4005 | 826 | 961 | 310 | 78-79 | 903-04 | 57 Rudhirōdgārin . . . | | 9 Mārgaśīra § . |
| 4006 | 827 | 962 | 311 | 79-80 | *904-05 | 58 Rakṭāksha† . . . | | ... |
| 4007 | 828 | 963 | 312 | 80-81 | 905-06 | 59 Krōdhana . . . | 60 Kshaya . . . | ... |
| 4008 | 829 | 964 | 313 | 81-82 | 906-07 | 60 Kshaya† . . . | 1 Prabhava . . . | 5 Śrāvaṇa . |
| 4009 | 830 | 965 | 314 | 82-83 | 907-08 | 1 Prabhava . . . | 2 Vibhava . . . | ... |
| 4010 | 831 | 966 | 315 | 83-84 | *908-09 | 2 Vibhava . . . | 3 Śukla . . . | ... |
| 4011 | 832 | 967 | 316 | 84-85 | 909-10 | 3 Sukla . . . | 4 Pramōda . . . | 2 Vaiśākha . |
| 4012 | 833 | 968 | 317 | 85-86 | 910-11 | 4 Pramōda . . . | 5 Prajāpati . . . | ... |
| 4013 | 834 | 969 | 318 | 86-87 | 911-12 | 5 Prajāpati . . . | 6 Aṅgiras . . . | 10 Pausa . |
| 4014 | 835 | 970 | 319 | 87-88 | *912-13 | 6 Aṅgiras . . . | 7 Śrīmukha . . . | ... |
| 4015 | 836 | 971 | 320 | 88-89 | 913-14 | 7 Śrīmukha . . . | 8 Bhāva . . . | ... |
| 4016 | 837 | 972 | 321 | 89-90 | 914-15 | 8 Bhāva . . . | 9 Yuvan . . . | 7 Āśvina . |
| 4017 | 838 | 973 | 322 | 90-91 | 915-16 | 9 Yuvan . . . | 10 Dhātṛi . . . | ... |
| 4018 | 839 | 974 | 323 | 91-92 | *916-17 | 10 Dhātṛi . . . | 11 Ívara . . . | ... |
| 4019 | 840 | 975 | 324 | 92-93 | 917-18 | 11 Ívara . . . | 12 Bahudhānya . . . | 3 Jyēshṭha . |
| 4020 | 841 | 976 | 325 | 93-94 | 918-19 | 12 Bahudhānya . . . | 13 Pramāthm . . . | ... |

† By the mean system 59 Krōdhana was expunged; by the true system 60 Kshaya was the expunged sāntara and the year A.D. 905-6 was called "Krodhana."

‡ By southern reckoning there was no suppression after this year

§ By the "Indian Calendar" 8 Kārttika was intercalated.

LXXVI—contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | | Kali year. |
|---------------------|-----------|-------------------------------|---|-----------|---------------------------------------|------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A. D. | Week-day. | a (here = t, the index of the tithi). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| 24 Mar. (83) . . | 1 Sun. . | 11. M. S.
10 17 30 | 11 Mar. (70) . . | 2 Mon. . | 104-0206 | 3996 | |
| 24 Mar. (83) . . | 2 Mon. . | 16 30 0 | 1 Mar. (60) . . | 0 Sat. . | 318-3359 | 3997 | |
| 23 Mar. (83) . . | 3 Tues. . | 22 42 30 | 18 Mar. (78) . . | 5 Thur. . | 14-3436 | 3998 | |
| 24 Mar. (83) . . | 5 Thur. . | 4 55 0 | 8 Mar. (67) . . | 3 Tues. . | 228-6589 | 3999 | |
| 24 Mar. (83) . . | 6 Fri. . | 11 7 30 | 25 Feb. (56) . . | 0 Sat. . | 104-3423 | 4000 | |
| 24 Mar. (83) . . | 0 Sat. . | 17 20 0 | 16 Mar. (75) . . | 6 Fri. . | 138-9819 | 4001 | |
| 23 Mar. (83) . . | 1 Sun. . | 23 32 30 | 4 Mar. (64) . . | 3 Tues. . | 14-6653 | 4002 | |
| 24 Mar. (83) . . | 3 Tues. . | 5 45 0 | 23 Mar. (82) . . | 2 Mon. . | 49-3049 | 4003 | |
| 24 Mar. (83) . . | 4 Wed. . | 11 57 30 | 13 Mar. (72) . . | 0 Sat. . | 263-6202 | 4004 | |
| 24 Mar. (83) . . | 5 Thur. . | 18 10 0 | 2 Mar. (61) . . | 4 Wed. . | 139-3084 | 4005 | |
| 24 Mar. (84) . . | 0 Sat. . | 0 22 30 | 20 Mar. (80) . . | 3 Tues. . | 173-9431 | 4006 | |
| 24 Mar. (83) . . | 1 Sun. . | 6 35 0 | 9 Mar. (68) . . | 0 Sat. . | 49-6264 | 4007 | |
| 24 Mar. (83) . . | 2 Mon. . | 12 47 30 | 27 Feb. (58) . . | 5 Thur. . | 263-9418 | 4008 | |
| 24 Mar. (83) . . | 3 Tues. . | 19 0 0 | 18 Mar. (77) . . | 4 Wed. . | 298-5814 | 4009 | |
| 24 Mar. (83) . . | 5 Thur. . | 1 12 30 | 6 Mar. (66) . . | 1 Sun. . | 174-2647 | 4010 | |
| 24 Mar. (83) . . | 6 Fri. . | 7 25 0 | 23 Feb. (54) . . | 5 Thur. . | 49-9481 | 4011 | |
| 24 Mar. (83) . . | 0 Sat. . | 13 37 30 | 14 Mar. (73) . . | 4 Wed. . | 84-5878 | 4012 | |
| 24 Mar. (82) . . | 1 Sun. . | 19 50 0 | 4 Mar. (63) . . | 2 Mon. . | 298-9030 | 4013 | |
| 24 Mar. (84) . . | 3 Tues. . | 2 2 30 | 21 Mar. (81) . . | 0 Sat. . | 9994-9109† | 4014 | |
| 24 Mar. (83) . . | 4 Wed. . | 8 15 0 | 11 Mar. (70) . . | 5 Thur. . | 209-2259 | 4015 | |
| 24 Mar. (83) . . | 5 Thur. . | 14 27 30 | 28 Feb. (59) . . | 2 Mon. . | 84-9093 | 4016 | |
| 24 Mar. (83) . . | 6 Fri. . | 20 40 0 | 19 Mar. (78) . . | 1 Sun. . | 119-5490 | 4017 | |
| 24 Mar. (84) . . | 1 Sun. . | 2 52 30 | 7 Mar. (67) . . | 5 Thur. . | 9995-2324† | 4018 | |
| 24 Mar. (83) . . | 2 Mon. . | 9 5 0 | 25 Feb. (56) . . | 3 Tues. . | 208-5476 | 4019 | |
| 24 Mar. (83) . . | 3 Tues. . | 15 17 30 | 16 Mar. (75) . . | 2 Mon. . | 244-1872 | 4020 | |

† As a mean tithi Chaitra Śukla 1 was suppressed. The civil day corresponding to it, i.e., the first day of the luni-solar year was as given in cols. 19, 20.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4021 | 842 | 977 | 326 | 94-95 | 919-20 | 13 Pramāthin . | 14 Vikrama . | 12 Phālguna . |
| 4022 | 843 | 978 | 327 | 95-96 | *920-21 | 14 Vikrama . | 15 Vṛisha . | ... |
| 4023 | 844 | 979 | 328 | 96-97 | 921-22 | 15 Vṛisha . | 16 Chitrabhānu . | ... |
| 4024 | 845 | 980 | 329 | 97-98 | 922-23 | 16 Chitrabhānu . | 17 Subhānu . | 8 Kārttika . |
| 4025 | 846 | 981 | 330 | 98-99 | 923-24 | 17 Subhānu . | 18 Tāraṇa . | ... |
| 4026 | 847 | 982 | 331 | 99-00 | *924-25 | 18 Tāraṇa . | 19 Pārthiva . | ... |
| 4027 | 848 | 983 | 332 | 100-01 | 925-26 | 19 Pārthiva . | 20 Vyaya . | 5 Śrāvaṇa . |
| 4028 | 849 | 984 | 333 | 101-02 | 926-27 | 20 Vyaya . | 21 Sarvajit . | ... |
| 4029 | 850 | 985 | 334 | 102-03 | 927-28 | 21 Sarvajit . | 22 Sarvadhārin . | ... |
| 4030 | 851 | 986 | 335 | 103-04 | *928-29 | 22 Sarvadhārin . | 23 Virōdhin . | 1 Chaitra . |
| 4031 | 852 | 987 | 336 | 104-05 | 929-30 | 23 Virōdhin . | 24 Vikṛita . | ... |
| 4032 | 853 | 988 | 337 | 105-06 | 930-31 | 24 Vikṛita . | 25 Khara . | 10 Pausa . |
| 4033 | 854 | 989 | 338 | 106-07 | 931-32 | 25 Khara . | 26 Nandana . | ... |
| 4034 | 855 | 990 | 339 | 107-08 | *932-33 | 26 Nandana . | 27 Vijaya . | ... |
| 4035 | 856 | 991 | 340 | 108-09 | 933-34 | 27 Vijaya . | 28 Jaya . | 6 Bhādrapada . |
| 4036 | 857 | 992 | 341 | 109-10 | 934-35 | 28 Jaya . | 29 Manmatha . | ... |
| 4037 | 858 | 993 | 342 | 110-11 | 935-36 | 29 Manmatha . | 30 Durmukha . | ... |
| 4038 | 859 | 994 | 343 | 111-12 | *936-37 | 30 Durmukha . | 31 Hēmalamba . | 3 Jyēshṭha . |
| 4039 | 860 | 995 | 344 | 112-13 | 937-38 | 31 Hēmalamba . | 32 Vilamba . | ... |
| 4040 | 861 | 996 | 345 | 113-14 | 938-39 | 32 Vilamba . | 33 Vikārin . | 11 Māgha . |
| 4041 | 862 | 997 | 346 | 114-15 | 939-40 | 33 Vikārin . | 34 Śārvarin . | ... |
| 4042 | 863 | 998 | 347 | 115-16 | *940-41 | 34 Śārvarin . | 35 Plava . | ... |
| 4043 | 864 | 999 | 348 | 116-17 | 941-42 | 35 Plava . | 36 Subhakrit . | 8 Kārttika . |
| 4044 | 865 | 1000 | 349 | 117-18 | 942-43 | 36 Subhakrit . | 37 Śōbhana . | ... |
| 4045 | 866 | 1001 | 350 | 118-19 | 943-44 | 37 Śōbhana . | 38 Krōdhin . | ... |

LXXVI—contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---------------------------------------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 24 Mar. (83) . . | 4 Wed. . | 21 30 0 | 5 Mar. (64) . . | 6 Fri. . | 119-8706 | 4021 |
| 24 Mar. (84) . . | 6 Fri. . | 3 42 30 | 23 Mar. (83) . . | 5 Thur. . | 154-5102 | 4022 |
| 24 Mar. (83) . . | 0 Sat. . | 9 55 0 | 12 Mar. (71) . . | 2 Mon. . | 30-1936 | 4023 |
| 24 Mar. (83) . . | 1 Sun. . | 16 7 30 | 2 Mar. (61) . . | 0 Sat. . | 244-5089 | 4024 |
| 24 Mar. (83) . . | 2 Mon. . | 22 20 0 | 21 Mar. (80) . . | 6 Fri. . | 279-1485 | 4025 |
| 24 Mar. (84) . . | 4 Wed. . | 4 32 30 | 9 Mar. (69) . . | 3 Tues. . | 154-8319 | 4026 |
| 24 Mar. (83) . . | 5 Thur. . | 10 45 0 | 26 Feb. (57) . . | 0 Sat. . | 30-5153 | 4027 |
| 24 Mar. (83) . . | 6 Fri. . | 16 57 30 | 17 Mar. (76) . . | 6 Fri. . | 65-1549 | 4028 |
| 24 Mar. (83) . . | 0 Sat. . | 23 10 0 | 7 Mar. (66) . . | 4 Wed. . | 279-4701 | 4029 |
| 24 Mar. (84) . . | 2 Mon. . | 5 22 30 | 24 Feb. (55) . . | 1 Sun. . | 155-1535 | 4030 |
| 24 Mar. (83) . . | 3 Tues. . | 11 35 0 | 14 Mar. (73) . . | 0 Sat. . | 189-7932 | 4031 |
| 24 Mar. (83) . . | 4 Wed. . | 17 47 30 | 3 Mar. (62) . . | 4 Wed. . | 65-4765 | 4032 |
| 25 Mar. (84) . . | 6 Fri. . | 0 0 0 | 22 Mar. (81) . . | 3 Tues. . | 100-1162 | 4033 |
| 24 Mar. (84) . . | 0 Sat. . | 6 12 30 | 11 Mar. (71) . . | 1 Sun. . | 314-4314 | 4034 |
| 24 Mar. (83) . . | 1 Sun. . | 12 25 0 | 28 Feb. (59) . . | 5 Thur. . | 190-1148 | 4035 |
| 24 Mar. (83) . . | 2 Mon. . | 18 37 30 | 19 Mar. (78) . . | 4 Wed. . | 224-7544 | 4036 |
| 25 Mar. (84) . . | 4 Wed. . | 0 50 0 | 8 Mar. (67) . . | 1 Sun. . | 100-4378 | 4037 |
| 24 Mar. (84) . . | 5 Thur. . | 7 2 30 | 26 Feb. (57) . . | 6 Fri. . | 314-7531 | 4038 |
| 24 Mar. (83) . . | 6 Fri. . | 13 15 0 | 15 Mar. (74) . . | 4 Wed. . | 10-7608 | 4039 |
| 24 Mar. (83) . . | 0 Sat. . | 19 27 30 | 5 Mar. (64) . . | 2 Mon. . | 225-9661 | 4040 |
| 25 Mar. (84) . . | 2 Mon. . | 1 40 0 | 24 Mar. (83) . . | 1 Sun. . | 259-7156 | 4041 |
| 24 Mar. (84) . . | 3 Tues. . | 7 52 30 | 12 Mar. (72) . . | 5 Thur. . | 125-3991 | 4042 |
| 24 Mar. (83) . . | 4 Wed. . | 14 5 0 | 1 Mar. (60) . . | 2 Mon. . | 11-0825 | 4043 |
| 24 Mar. (83) . . | 5 Thur. . | 20 17 30 | 20 Mar. (79) . . | 1 Sun. . | 45-7222 | 4044 |
| 25 Mar. (84) . . | 0 Sat. . | 2 30 0 | 10 Mar. (69) . . | 6 Fri. . | 260-0474 | 4045 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1. | 2. | 3. | 3a. | 4. | 5. | 6. | 7. | 8a. |
| 4046 | 867 | 1002 | 351 | 119-20 | *944-45 | 38 Krōdhin . | 39 Viśvāvasu . | 5 Srāvaṇa† . |
| 4047 | 868 | 1003 | 352 | 120-21 | 945-46 | 39 Viśvāvasu . | 40 Parābhava . | ... |
| 4048 | 869 | 1004 | 353 | 121-22 | 946-47 | 40 Parābhava . | 41 Plavaṅga . | ... |
| 4049 | 870 | 1005 | 354 | 122-23 | 947-48 | 41 Plavaṅga . | 42 Kīlaka . | 1 Chaitra . |
| 4050 | 871 | 1006 | 355 | 123-24 | *948-49 | 42 Kīlaka . | 43 Saumya . | ... |
| 4051 | 872 | 1007 | 356 | 124-25 | 949-50 | 43 Saumya . | 44 Sādhārana . | 10 Pausa . |
| 4052 | 873 | 1008 | 357 | 125-26 | 950-51 | 44 Sādhārana . | 45 Virōdhakṛit . | ... |
| 4053 | 874 | 1009 | 358 | 126-27 | 951-52 | 45 Virōdhakṛit . | 46 Paridhāvin . | ... |
| 4054 | 875 | 1010 | 359 | 127-28 | *952-53 | 46 Paridhāvin . | 47 Pramādin . | 6 Bhādrapada . |
| 4055 | 876 | 1011 | 360 | 128-29 | 953-54 | 47 Pramādin . | 48 Ānanda . | ... |
| 4056 | 877 | 1012 | 361 | 129-30 | 954-55 | 48 Ānanda . | 49 Rākshasa . | ... |
| 4057 | 878 | 1013 | 362 | 130-31 | 955-56 | 49 Rākshasa . | 50 Anala . | 3 Jyēṣṭha . |
| 4058 | 879 | 1014 | 363 | 131-32 | *956-57 | 50 Anala . | 51 Pīṅgala . | ... |
| 4059 | 880 | 1015 | 364 | 132-33 | 957-58 | 51 Pīṅgala . | 52 Kālayukta . | 11 Māgha . |
| 4060 | 881 | 1016 | 365 | 133-34 | 958-59 | 52 Kālayukta . | 53 Siddhārthin . | ... |
| 4061 | 882 | 1017 | 366 | 134-35 | 959-60 | 53 Siddhārthin . | 54 Raudra . | ... |
| 4062 | 883 | 1018 | 367 | 135-36 | *960-61 | 54 Raudra . | 55 Durmatī . | 8 Kārttika . |
| 4063 | 884 | 1019 | 368 | 136-37 | 961-62 | 55 Durmatī . | 56 Dundubhi . | ... |
| 4064 | 885 | 1020 | 369 | 137-38 | 962-63 | 56 Dundubhi . | 57 Rudhirōdgārin . | ... |
| 4065 | 886 | 1021 | 370 | 138-39 | 963-64 | 57 Rudhirōdgārin . | 58 Raktāksha . | 4 Āṣāḍha . |
| 4066 | 887 | 1022 | 371 | 139-40 | *964-65 | 58 Raktāksha . | 59 Krōdhana . | ... |
| 4067 | 888 | 1023 | 372 | 140-41 | 965-66 | 59 Krōdhana . | 60 Kshaya . | ... |
| 4068 | 889 | 1024 | 373 | 141-42 | 966-67 | 60 Kshaya . | 1 Prabhava . | 1 Chaitra . |
| 4069 | 890 | 1025 | 374 | 142-43 | 967-68 | 1 Prabhava . | 2 Vibhava . | ... |
| 4070 | 891 | 1026 | 375 | 143-44 | *968-69 | 2 Vibhava . | 3 Śukla . | 9 Mārgaśīṣa . |

† By the "Indian Calendar" the intercalated month was 4 Āshāḍha.

LXXVI—contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here= <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 24 Mar. (84) . . . | 1 Sun. . . | 8 42 30 | 27 Feb. (58) . . . | 3 Tues. . . | 135-7207 | 4046 |
| 24 Mar. (83) . . . | 2 Mon. . . | 14 55 0 | 17 Mar. (76) . . . | 2 Mon. . . | 170-3603 | 4047 |
| 24 Mar. (83) . . . | 3 Tues. . . | 21 7 30 | 6 Mar. (65) . . . | 6 Fri. . . | 46-0436 | 4048 |
| 25 Mar. (84) . . . | 5 Thur. . . | 3 20 0 | 24 Feb. (55) . . . | 4 Wed. . . | 260-3590 | 4049 |
| 24 Mar. (84) . . . | 6 Fri. . . | 9 32 30 | 14 Mar. (74) . . . | 3 Tues. . . | 294-0986 | 4050 |
| 24 Mar. (83) . . . | 0 Sat. . . | 15 45 0 | 3 Mar. (62) . . . | 0 Sat. . . | 170-6819 | 4051 |
| 24 Mar. (83) . . . | 1 Sun. . . | 21 57 30 | 22 Mar. (81) . . . | 6 Fri. . . | 205-3216 | 4052 |
| 25 Mar. (84) . . . | 3 Tues. . . | 4 10 0 | 11 Mar. (70) . . . | 3 Tues. . . | 81-0049 | 4053 |
| 24 Mar. (84) . . . | 4 Wed. . . | 10 22 30 | 29 Feb. (60) . . . | 1 Sun. . . | 295-3203 | 4054 |
| 24 Mar. (83) . . . | 5 Thur. . . | 16 35 0 | 10 Mar. (78) . . . | 0 Sat. . . | 329-9599 | 4055 |
| 24 Mar. (83) . . . | 6 Fri. . . | 22 47 30 | 8 Mar. (67) . . . | 4 Wed. . . | 205-6432 | 4056 |
| 25 Mar. (84) . . . | 1 Sun. . . | 5 0 0 | 25 Feb. (56) . . . | 1 Sun. . . | 81-3266 | 4057 |
| 24 Mar. (84) . . . | 2 Mon. . . | 11 12 30 | 15 Mar. (75) . . . | 0 Sat. . . | 115-9662 | 4058 |
| 24 Mar. (83) . . . | 3 Tues. . . | 17 25 0 | 5 Mar. (64) . . . | 5 Thur. . . | 330-2815 | 4059 |
| 24 Mar. (83) . . . | 4 Wed. . . | 23 37 30 | 23 Mar. (82) . . . | 3 Tues. . . | 26-2892 | 4060 |
| 25 Mar. (84) . . . | 6 Fri. . . | 5 50 0 | 13 Mar. (72) . . . | 1 Sun. . . | 240-6045 | 4061 |
| 24 Mar. (84) . . . | 0 Sat. . . | 12 2 30 | 1 Mar. (61) . . . | 5 Thur. . . | 116-2870 | 4062 |
| 24 Mar. (83) . . . | 1 Sun. . . | 18 15 0 | 20 Mar. (79) . . . | 4 Wed. . . | 150-9275 | 4063 |
| 25 Mar. (84) . . . | 3 Tues. . . | 0 27 30 | 9 Mar. (68) . . . | 1 Sun. . . | 26-6109 | 4064 |
| 25 Mar. (84) . . . | 4 Wed. . . | 6 40 0 | 27 Feb. (58) . . . | 6 Fri. . . | 240-9262 | 4065 |
| 24 Mar. (84) . . . | 5 Thur. . . | 12 52 30 | 17 Mar. (77) . . . | 5 Thur. . . | 275-5658 | 4066 |
| 24 Mar. (83) . . . | 6 Fri. . . | 19 5 0 | 6 Mar. (65) . . . | 2 Mon. . . | 151-2491 | 4067 |
| 25 Mar. (84) . . . | 1 Sun. . . | 1 17 30 | 23 Feb. (54) . . . | 6 Fri. . . | 26-9325 | 4068 |
| 25 Mar. (84) . . . | 2 Mon. . . | 7 30 0 | 14 Mar. (73) . . . | 5 Thur. . . | 61-5721 | 4069 |
| 24 Mar. (84) . . . | 3 Tues. . . | 13 42 30 | 3 Mar. (63) . . . | 3 Tues. . . | 275-8874 | 4070 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 8 | 8a |
| 4071 | 892 | 1027 | 376 | 144-45 | 969-70 | 3 Śukla . . | 4 Pramōda . | ... |
| 4072 | 893 | 1028 | 377 | 145-46 | 970-71 | 4 Pramōda . | 5 Prajāpati . | ... |
| 4073 | 894 | 1029 | 378 | 146-47 | 971-72 | 5 Prajāpati . | 6 Āngiras . | 6 Bhādrapada |
| 4074 | 895 | 1030 | 379 | 147-48 | *972-73 | 6 Āngiras . | 7 Śrīmukha . | ... |
| 4075 | 896 | 1031 | 380 | 148-49 | 973-74 | 7 Śrīmukha . | 8 Bhāva . . | ... |
| 4076 | 897 | 1032 | 381 | 149-50 | 974-75 | 8 Bhāva . . | 9 Yuvan . . | 2 Vaiśākha . |
| 4077 | 898 | 1033 | 382 | 150-51 | 975-76 | 9 Yuvan . . | 10 Dhātṛi . . | ... |
| 4078 | 899 | 1034 | 383 | 151-52 | *976-77 | 10 Dhātṛi . . | 11 Īsvara . . | 11 Māgha . . |
| 4079 | 900 | 1035 | 384 | 152-53 | 977-78 | 11 Īsvara . . | 12 Bahudhānya . | ... |
| 4080 | 901 | 1036 | 385 | 153-54 | 978-79 | 12 Bahudhānya . | 13 Pramāthin . | ... |
| 4081 | 902 | 1037 | 386 | 154-55 | 979-80 | 13 Pramāthin . | 14 Vikrama . | 8 Kārttika † . |
| 4082 | 903 | 1038 | 387 | 155-56 | *980-81 | 14 Vikrama . | 15 Vṛisha . . | ... |
| 4083 | 904 | 1039 | 388 | 156-57 | 981-82 | 15 Vṛisha . . | 16 Chitrabhānu . | ... |
| 4084 | 905 | 1040 | 389 | 157-58 | 982-83 | 16 Chitrabhānu . | 17 Subhānu . . | 4 Āshādha . . |
| 4085 | 906 | 1041 | 390 | 158-59 | 983-84 | 17 Subhānu . . | 18 Tārāṇa . . | ... |
| 4086 | 907 | 1042 | 391 | 159-60 | *984-85 | 18 Tārāṇa . . | 19 Pārthiva . . | ... |
| 4087 | 908 | 1043 | 392 | 160-61 | 985-86 | 19 Pārthiva . . | 20 Vyaya . . | 1 Chaitra . . |
| 4088 | 909 | 1044 | 393 | 161-62 | 986-87 | 20 Vyaya . . | 21 Sarvajit . . | ... |
| 4089 | 910 | 1045 | 394 | 162-63 | 987-88 | 21 Sarvajit . . | 22 Sarvadhārin . | 9 Mārgaśīra . |
| 4090 | 911 | 1046 | 395 | 163-64 | *988-89 | 22 Sarvadhārin . | 23 Virōdhin . . | ... |
| 4091 | 912 | 1047 | 396 | 164-65 | 989-90 | 23 Virōdhin . . | 24 Vikṛita † . . | ... |
| 4092 | 913 | 1048 | 397 | 165-66 | 990-91 | 24 Vikṛita . . | 26 Nandana . . | 6 Bhādrapada |
| 4093 | 914 | 1049 | 398 | 166-67 | 991-92 | 25 Khara . . | 27 Vijaya . . | ... |
| 4094 | 915 | 1050 | 399 | 167-68 | *992-93 | 26 Nandana . . | 28 Jaya . . | ... |
| 4095 | 916 | 1051 | 400 | 168-69 | 993-94 | 27 Vijaya . . | 29 Manmatha . | 2 Vaiśākha . . |

† By the "Indian Calendar" 7 Āsina was intercalated.

‡ 25 Khara was expunged in the north by the mean system, but 26 Nandana by the true system. By the true system the year A.D. 990-91 was, in the north, called "Khara."

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here= <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 24 Mar. (83) . . | 4 Wed. . | 19 55 0 | 22 Mar. (81) . . | 2 Mon. . | 310-5271 | 4071 |
| 25 Mar. (84) . . | 6 Fri. . | 2 7 30 | 11 Mar. (70) . . | 6 Fri. . | 186-2104 | 4072 |
| 25 Mar. (84) . . | 0 Sat. . | 8 20 0 | 28 Feb. (59) . . | 3 Tues. . | 61-8939 | 4073 |
| 24 Mar. (84) . . | 1 Sun. . | 14 32 30 | 18 Mar. (78) . . | 2 Mon. . | 96-5335 | 4074 |
| 24 Mar. (83) . . | 2 Mon. . | 20 45 0 | 8 Mar. (67) . . | 0 Sat. . | 310-8487 | 4075 |
| 25 Mar. (84) . . | 4 Wed. . | 2 57 30 | 25 Feb. (56) . . | 4 Wed. . | 186-5321 | 4076 |
| 25 Mar. (84) . . | 5 Thur. . | 9 10 0 | 16 Mar. (75) . . | 3 Tues. . | 221-1716 | 4077 |
| 24 Mar. (84) . . | 6 Fri. . | 15 22 30 | 4 Mar. (64) . . | 0 Sat. . | 96-8550 | 4078 |
| 24 Mar. (83) . . | 0 Sat. . | 21 35 0 | 23 Mar. (82) . . | 6 Fri. . | 131-4946 | 4079 |
| 25 Mar. (84) . . | 2 Mon. . | 3 47 30 | 12 Mar. (71) . . | 3 Tues. . | 7-1781 | 4080 |
| 25 Mar. (84) . . | 3 Tues. . | 10 0 0 | 2 Mar. (61) . . | 1 Sun. . | 221-4933 | 4081 |
| 24 Mar. (84) . . | 4 Wed. . | 16 12 30 | 20 Mar. (80) . . | 0 Sat. . | 256-1329 | 4082 |
| 24 Mar. (83) . . | 5 Thur. . | 22 25 0 | 9 Mar. (68) . . | 4 Wed. . | 131-8163 | 4083 |
| 25 Mar. (84) . . | 0 Sat. . | 4 37 30 | 26 Feb. (57) . . | 1 Sun. . | 7-4998 | 4084 |
| 25 Mar. (84) . . | 1 Sun. . | 10 50 0 | 17 Mar. (76) . . | 0 Sat. . | 41-1393 | 4085 |
| 24 Mar. (84) . . | 2 Mon. . | 17 2 30 | 6 Mar. (66) . . | 5 Thur. . | 256-4546 | 4086 |
| 24 Mar. (83) . . | 3 Tues. . | 23 15 0 | 23 Feb. (54) . . | 2 Mon. . | 132-1379 | 4087 |
| 25 Mar. (84) . . | 5 Thur. . | 5 27 30 | 14 Mar. (73) . . | 1 Sun. . | 166-7776 | 4088 |
| 25 Mar. (84) . . | 6 Fri. . | 11 40 0 | 3 Mar. (62) . . | 5 Thur. . | 42-4610 | 4089 |
| 24 Mar. (84) . . | 0 Sat. . | 17 52 30 | 21 Mar. (81) . . | 4 Wed. . | 77-1006 | 4090 |
| 25 Mar. (84) . . | 2 Mon. . | 0 5 0 | 11 Mar. (70) . . | 2 Mon. . | 291-4158 | 4091 |
| 25 Mar. (84) . . | 3 Tues. . | 6 17 30 | 28 Feb. (59) . . | 6 Fri. . | 167-0992 | 4092 |
| 25 Mar. (84) . . | 4 Wed. . | 12 30 0 | 19 Mar. (78) . . | 5 Thur. . | 201-7389 | 4093 |
| 24 Mar. (84) . . | 5 Thur. . | 18 42 30 | 7 Mar. (67) . . | 2 Mon. . | 77-4222 | 4094 |
| 25 Mar. (84) . . | 0 Sat. . | 0 55 0 | 25 Feb. (56) . . | 0 Sat. . | 291-7375 | 4095 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adbika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4096 | 917 | 1052 | 401 | 169-70 | 994-95 | 28 Jaya . . | 30 Durmukha . | ... |
| 4097 | 918 | 1053 | 402 | 170-71 | 995-96 | 29 Manmatha . | 31 Hēmalamba . | 11 Māgha . |
| 4098 | 919 | 1054 | 403 | 171-72 | *996-97 | 30 Durmukha . | 32 Vilamba . | ... |
| 4099 | 920 | 1055 | 404 | 172-73 | 997-98 | 31 Hēmalamba . | 33 Vikārin . | ... |
| 4100 | 921 | 1056 | 405 | 173-74 | 998-99 | 32 Vilamba . | 34 Śārvarin . | 7 Āsvina . |
| 4101 | 922 | 1057 | 406 | 174-75 | 999-000 | 33 Vikārin . | 35 Plava . | ... |
| 4102 | 923 | 1058 | 407 | 175-76 | *1000-01 | 34 Śārvarin . | 36 Subhakṛit . | ... |
| 4103 | 924 | 1059 | 408 | 176-77 | 1001-02 | 35 Plava . | 37 Śōbhana . | 4 Āshāḍha . |
| 4104 | 925 | 1060 | 409 | 177-78 | 1002-03 | 36 Subhakṛit . | 38 Krōddhin . | ... |
| 4105 | 926 | 1061 | 410 | 178-79 | 1003-04 | 37 Śōbhana . | 39 Viśvāvasu . | 12 Phālguna . |
| 4106 | 927 | 1062 | 411 | 179-80 | *1004-05 | 38 Krōddhin . | 40 Parābhava . | ... |
| 4107 | 928 | 1063 | 412 | 180-81 | 1005-06 | 39 Viśvāvasu . | 41 Plavaṅga . | ... |
| 4108 | 929 | 1064 | 413 | 181-82 | 1006-07 | 40 Parābhava . | 42 Kilaka . | 9 Mārgaśīra . |
| 4109 | 930 | 1065 | 414 | 182-83 | 1007-08 | 41 Plavaṅga . | 43 Saumya . | ... |
| 4110 | 931 | 1066 | 415 | 183-84 | *1008-09 | 42 Kilaka . | 44 Sādhāraṇa . | ... |
| 4111 | 932 | 1067 | 416 | 184-85 | 1009-10 | 43 Saumya . | 45 Virōdhakṛit . | 5 Śrāvaṇa . |
| 4112 | 933 | 1068 | 417 | 185-86 | 1010-11 | 44 Sādhāraṇa . | 46 Paridhāvin . | ... |
| 4113 | 934 | 1069 | 418 | 186-87 | 1011-12 | 45 Virōdhakṛit . | 47 Pramādin . | ... |
| 4114 | 935 | 1070 | 419 | 187-88 | *1012-13 | 46 Paridhāvin . | 48 Ānanda . | 2 Vaiśākha . |
| 4115 | 936 | 1071 | 420 | 188-89 | 1013-14 | 47 Pramādin . | 49 Rākshasa . | ... |
| 4116 | 937 | 1072 | 421 | 189-90 | 1014-15 | 48 Ānanda . | 50 Anala . | 10 Pausa . |
| 4117 | 938 | 1073 | 422 | 190-91 | 1015-16 | 49 Rākshasa . | 51 Piṅgala . | ... |
| 4118 | 939 | 1074 | 423 | 191-92 | *1016-17 | 50 Anala . | 52 Kālayukta . | ... |
| 4119 | 940 | 1075 | 424 | 192-93 | 1017-18 | 51 Piṅgala . | 53 Siddhārthin . | 7 Āsvina . |
| 4120 | 941 | 1076 | 425 | 193-94 | 1018-19 | 52 Kālayukta . | 54 Raudra . | ... |

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mésha-samkrānti. | Day and month, A.D. | Week-day. | a (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 25 Mar. (84) . . | 1 Sun. . | 7 7 30 | 16 Mar. (75) . . | 6 Fri. . | 326-3771 | 4098 |
| 25 Mar. (84) . . | 2 Mon. . | 13 20 0 | 5 Mar. (84) . . | 3 Tues. . | 202-0605 | 4097 |
| 24 Mar. (84) . . | 3 Tues. . | 10 32 30 | 23 Mar. (83) . . | 2 Mon. . | 236-7001 | 4098 |
| 25 Mar. (84) . . | 5 Thur. . | 1 45 0 | 12 Mar. (71) . . | 6 Fri. . | 112-3835 | 4099 |
| 25 Mar. (84) . . | 6 Fri. . | 7 57 30 | 2 Mar. (61) . . | 4 Wed. . | 326-6988 | 4100 |
| 25 Mar. (84) . . | 0 Sat. . | 14 10 0 | 20 Mar. (79) . . | 2 Mon. . | 22-7065 | 4101 |
| 24 Mar. (84) . . | 1 Sun. . | 20 22 30 | 9 Mar. (69) . . | 0 Sat. . | 237-0218 | 4102 |
| 25 Mar. (84) . . | 3 Tues. . | 2 35 0 | 26 Feb. (57) . . | 4 Wed. . | 112-7052 | 4103 |
| 25 Mar. (84) . . | 4 Wed. . | 8 47 30 | 17 Mar. (76) . . | 3 Tues. . | 147-3448 | 4104 |
| 25 Mar. (84) . . | 5 Thur. . | 15 0 0 | 6 Mar. (65) . . | 0 Sat. . | 23-0272 | 4105 |
| 24 Mar. (84) . . | 6 Fri. . | 21 12 30 | 24 Mar. (84) . . | 6 Fri. . | 57-6667 | 4106 |
| 25 Mar. (84) . . | 1 Sun. . | 3 25 0 | 14 Mar. (73) . . | 4 Wed. . | 271-9831 | 4107 |
| 25 Mar. (84) . . | 2 Mon. . | 9 37 30 | 3 Mar. (62) . . | 1 Sun. . | 147-6665 | 4108 |
| 25 Mar. (84) . . | 3 Tues. . | 15 50 0 | 22 Mar. (81) . . | 0 Sat. . | 182-3061 | 4109 |
| 24 Mar. (84) . . | 4 Wed. . | 22 2 30 | 10 Mar. (70) . . | 4 Wed. . | 57-9894 | 4110 |
| 25 Mar. (84) . . | 6 Fri. . | 4 15 0 | 28 Feb. (59) . . | 2 Mon. . | 272-3047 | 4111 |
| 25 Mar. (84) . . | 0 Sat. . | 10 27 30 | 19 Mar. (78) . . | 1 Sun. . | 306-9444 | 4112 |
| 25 Mar. (84) . . | 1 Sun. . | 16 40 0 | 8 Mar. (67) . . | 5 Thur. . | 182-6277 | 4113 |
| 24 Mar. (84) . . | 2 Mon. . | 22 52 30 | 25 Feb. (56) . . | 2 Mon. . | 58-3111 | 4114 |
| 25 Mar. (84) . . | 4 Wed. . | 5 5 0 | 15 Mar. (74) . . | 1 Sun. . | 92-9507 | 4115 |
| 25 Mar. (84) . . | 5 Thur. . | 11 17 30 | 5 Mar. (64) . . | 6 Fri. . | 307-2659 | 4116 |
| 25 Mar. (84) . . | 6 Fri. . | 17 30 0 | 23 Mar. (82) . . | 4 Wed. . | 3-2737 | 4117 |
| 24 Mar. (84) . . | 0 Sat. . | 23 42 30 | 12 Mar. (72) . . | 2 Mon. . | 217-5890 | 4118 |
| 25 Mar. (84) . . | 2 Mon. . | 5 55 0 | 1 Mar. (60) . . | 6 Fri. . | 93-2723 | 4119 |
| 25 Mar. (84) . . | 3 Tues. . | 12 7 30 | 20 Mar. (79) . . | 5 Thur. . | 127-9119 | 4120 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4121 | 942 | 1077 | 426 | 194-05 | 1019-20 | 53 Siddhārthin . | 55 Durmati . | ... |
| 4122 | 943 | 1078 | 427 | 195-06 | *1020-21 | 54 Raudra . | 56 Dundubhi . | 4 Āshāḍha ‡ . |
| 4123 | 944 | 1079 | 428 | 196-07 | 1021-22 | 55 Durmati . | 57 Rudhirōdgārin | ... |
| 4124 | 945 | 1080 | 429 | 197-08 | 1022-23 | 56 Dundubhi . | 58 Raktāksha . | 12 Phālguna . |
| 4125 | 946 | 1081 | 430 | 198-09 | 1023-24 | 57 Rudhirōdgārin | 59 Krōdhana . | ... |
| 4126 | 947 | 1082 | 431 | 199-00 | *1024-25 | 58 Raktāksha . | 60 Kshaya . | ... |
| 4127 | 948 | 1083 | 432 | 200-01 | 1025-26 | 59 Krōdhana . | 1 Prabhava . | 9 Mārgaśīra . |
| 4128 | 949 | 1084 | 433 | 201-02 | 1026-27 | 60 Kshaya . | 2 Vibhava . | ... |
| 4129 | 950 | 1085 | 434 | 202-03 | 1027-28 | 1 Prabhava . | 3 Śukla . | ... |
| 4130 | 951 | 1086 | 435 | 203-04 | *1028-29 | 2 Vibhava . | 4 Pramōda . | 5 Śrāvaṇa . |
| 4131 | 952 | 1087 | 436 | 204-05 | 1029-30 | 3 Śukla . | 5 Prajāpati . | ... |
| 4132 | 953 | 1088 | 437 | 205-06 | 1030-31 | 4 Pramōda . | 6 Āngiras . | ... |
| 4133 | 954 | 1089 | 438 | 206-07 | 1031-32 | 5 Prajāpati . | 7 Śrīmukha . | 2 Vaisākha . |
| 4134 | 955 | 1090 | 439 | 207-08 | *1032-33 | 6 Āngiras . | 8 Bhāva . | ... |
| 4135 | 956 | 1091 | 440 | 208-09 | 1033-34 | 7 Śrīmukha . | 9 Yuvaṇ . | 10 Pausa . |
| 4136 | 957 | 1092 | 441 | 209-10 | 1034-35 | 8 Bhāva . | 10 Dhātṛi . | ... |
| 4137 | 958 | 1093 | 442 | 210-11 | 1035-36 | 9 Yuvaṇ . | 11 Īśvara . | ... |
| 4138 | 959 | 1094 | 443 | 211-12 | *1036-37 | 10 Dhātṛi . | 12 Bahudhānya . | 7 Āśvina . |
| 4139 | 960 | 1095 | 444 | 212-13 | 1037-38 | 11 Īśvara . | 13 Pramāthin . | ... |
| 4140 | 961 | 1096 | 445 | 213-14 | 1038-39 | 12 Bahudhānya . | 14 Vikrama . | ... |
| 4141 | 962 | 1097 | 446 | 214-15 | 1039-40 | 13 Pramāthin . | 15 Vṛisha . | 3 Jyēṣṭha . |
| 4142 | 963 | 1098 | 447 | 215-16 | *1040-41 | 14 Vikrama . | 16 Chitrabhānu . | ... |
| 4143 | 964 | 1099 | 448 | 216-17 | 1041-42 | 15 Vṛisha . | 17 Subhānu . | 12 Phālguna . |
| 4144 | 965 | 1100 | 449 | 217-18 | 1042-43 | 16 Chitrabhānu . | 18 Tāraṇa . | ... |
| 4145 | 966 | 1101 | 450 | 218-19 | 1043-44 | 17 Subhānu . | 19 Pārthiva . | ... |

‡ By the "Indian Calendar" 3 Jyēṣṭha was intercalated.

LXXVI—Contd.

1 Ārya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mōsha-samkrānti. | Day and month, A.D. | Week-day. | a (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 25 Mar. (84) . . | 4 Wed. . . | 18 20 0 | 9 Mar. (68) . . | 2 Mon. . . | 3-5953 | 4121 |
| 25 Mar. (85) . . | 6 Fri. . . | 0 32 30 | 27 Feb. (58) . . | 0 Sat. . . | 217-8106 | 4122 |
| 25 Mar. (84) . . | 0 Sat. . . | 6 45 0 | 17 Mar. (76) . . | 6 Fri. . . | 252-5502 | 4123 |
| 25 Mar. (84) . . | 1 Sun. . . | 12 57 30 | 6 Mar. (65) . . | 3 Tues. . . | 128-2336 | 4124 |
| 25 Mar. (84) . . | 2 Mon. . . | 19 10 0 | 25 Mar. (84) . . | 2 Mon. . . | 162-8732 | 4125 |
| 25 Mar. (85) . . | 4 Wed. . . | 1 22 30 | 13 Mar. (73) . . | 6 Fri. . . | 38-5566 | 4126 |
| 25 Mar. (84) . . | 5 Thur. . . | 7 35 0 | 3 Mar. (62) . . | 4 Wed. . . | 252-8719 | 4127 |
| 25 Mar. (84) . . | 6 Fri. . . | 13 47 30 | 22 Mar. (81) . . | 3 Tues. . . | 287-5115 | 4128 |
| 25 Mar. (84) . . | 0 Sat. . . | 20 0 0 | 11 Mar. (70) . . | 0 Sat. . . | 163-1948 | 4129 |
| 25 Mar. (85) . . | 2 Mon. . . | 2 12 30 | 28 Feb. (59) . . | 4 Wed. . . | 38-8782 | 4130 |
| 25 Mar. (84) . . | 3 Tues. . . | 8 25 0 | 18 Mar. (77) . . | 3 Tues. . . | 73-5179 | 4131 |
| 25 Mar. (84) . . | 4 Wed. . . | 14 37 30 | 8 Mar. (67) . . | 1 Sun. . . | 287-8331 | 4132 |
| 25 Mar. (84) . . | 5 Thur. . . | 20 50 0 | 25 Feb. (56) . . | 5 Thur. . . | 163-5165 | 4133 |
| 25 Mar. (85) . . | 0 Sat. . . | 3 2 30 | 15 Mar. (75) . . | 4 Wed. . . | 198-1561 | 4134 |
| 25 Mar. (84) . . | 1 Sun. . . | 9 15 0 | 4 Mar. (63) . . | 1 Sun. . . | 73-8395 | 4135 |
| 25 Mar. (84) . . | 2 Mon. . . | 15 27 30 | 23 Mar. (82) . . | 0 Sat. . . | 108-4791 | 4136 |
| 25 Mar. (84) . . | 3 Tues. . . | 21 40 0 | 13 Mar. (72) . . | 5 Thur. . . | 322-7944 | 4137 |
| 25 Mar. (85) . . | 5 Thur. . . | 3 52 30 | 1 Mar. (61) . . | 2 Mon. . . | 198-4778 | 4138 |
| 25 Mar. (84) . . | 6 Fri. . . | 10 5 0 | 20 Mar. (79) . . | 1 Sun. . . | 233-1174 | 4139 |
| 25 Mar. (84) . . | 0 Sat. . . | 16 17 30 | 9 Mar. (68) . . | 5 Thur. . . | 108-8008 | 4140 |
| 25 Mar. (84) . . | 1 Sun. . . | 22 30 0 | 27 Feb. (58) . . | 3 Tues. . . | 323-1161 | 4141 |
| 25 Mar. (85) . . | 3 Tues. . . | 4 42 30 | 16 Mar. (76) . . | 1 Sun. . . | 19-1238 | 4142 |
| 25 Mar. (84) . . | 4 Wed. . . | 10 55 0 | 6 Mar. (65) . . | 6 Fri. . . | 233-4391 | 4143 |
| 25 Mar. (84) . . | 5 Thur. . . | 17 7 30 | 25 Mar. (84) . . | 5 Thur. . . | 268-0787 | 4144 |
| 25 Mar. (84) . . | 6 Fri. . . | 23 20 0 | 14 Mar. (73) . . | 2 Mon. . . | 143-7621 | 4145 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4146 | 967 | 1102 | 451 | 219-20 | *1044-45 | 18 Tārāṇa . | 20 Vyaya . | 8 Kārttika . |
| 4147 | 968 | 1103 | 452 | 220-21 | 1045-46 | 19 Pārthiva . | 21 Sarvajit . | ... |
| 4148 | 969 | 1104 | 453 | 221-22 | 1046-47 | 20 Vyaya . | 22 Sarvadhārin . | ... |
| 4149 | 970 | 1105 | 454 | 222-23 | 1047-48 | 21 Sarvajit . | 23 Virōdhin . | 5 Śrāvaṇa . |
| 4150 | 971 | 1106 | 455 | 223-24 | *1048-49 | 22 Sarvadhārin . | 24 Vikṛita . | ... |
| 4151 | 972 | 1107 | 456 | 224-25 | 1049-50 | 23 Virōdhin . | 25 Khara . | ... |
| 4152 | 973 | 1108 | 457 | 225-26 | 1050-51 | 24 Vikṛita . | 26 Nandana . | 1 Chaitra . |
| 4153 | 974 | 1109 | 458 | 226-27 | 1051-52 | 25 Khara . | 27 Vijaya . | ... |
| 4154 | 975 | 1110 | 459 | 227-28 | *1052-53 | 26 Nandana . | 28 Jaya . | 10 Pausa . |
| 4155 | 976 | 1111 | 460 | 228-29 | 1053-54 | 27 Vijaya . | 29 Manmatha . | ... |
| 4156 | 977 | 1112 | 461 | 229-30 | 1054-55 | 28 Jaya . | 30 Durmukha . | ... |
| 4157 | 978 | 1113 | 462 | 230-31 | 1055-56 | 29 Manmatha . | 31 Hōmalamba . | 7 Āśvina† . |
| 4158 | 979 | 1114 | 463 | 231-32 | *1056-57 | 30 Durmukha . | 32 Vilamba . | ... |
| 4159 | 980 | 1115 | 464 | 232-33 | 1057-58 | 31 Hōmalamba . | 33 Vikārin . | ... |
| 4160 | 981 | 1116 | 465 | 233-34 | 1058-59 | 32 Vilamba . | 34 Śārvarin . | 3 Jyēṣṭha . |
| 4161 | 982 | 1117 | 466 | 234-35 | 1059-60 | 33 Vikārin . | 35 Plava . | ... |
| 4162 | 983 | 1118 | 467 | 235-36 | *1060-61 | 34 Śārvarin . | 36 Subhakṛit . | 12 Phālguna . |
| 4163 | 984 | 1119 | 468 | 236-37 | 1061-62 | 35 Plava . | 37 Śōbhana . | ... |
| 4164 | 985 | 1120 | 469 | 237-38 | 1062-63 | 36 Subhakṛit . | 38 Krōdhin . | ... |
| 4165 | 986 | 1121 | 470 | 238-39 | 1063-64 | 37 Śōbhana . | 39 Viśvāvasu . | 8 Kārttika . |
| 4166 | 987 | 1122 | 471 | 239-40 | *1064-65 | 38 Krōdhin . | 40 Parābhava . | ... |
| 4167 | 988 | 1123 | 472 | 240-41 | 1065-66 | 39 Viśvāvasu . | 41 Plavaṅga . | ... |
| 4168 | 989 | 1124 | 473 | 241-42 | 1066-67 | 40 Parābhava . | 42 Kilaka . | 5 Śrāvaṇa . |
| 4169 | 990 | 1125 | 474 | 242-43 | 1067-68 | 41 Plavaṅga . | 43 Saumya . | ... |
| 4170 | 991 | 1126 | 475 | 243-44 | *1068-69 | 42 Kilaka . | 44 Sādhārana . | ... |

† By the "Indian Calendar" 6 Bhādrapada was the intercalated month.

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Māha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here= <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 25 Mar. (85) . . | 1 Sun. . | 5 32 30 | 2 Mar. (62) . . | 6 Fri. . | 19-4454 | 4146 |
| 25 Mar. (84) . . | 2 Mon. . | 11 45 0 | 21 Mar. (80) . . | 5 Thur. . | 54-0850 | 4147 |
| 25 Mar. (84) . . | 3 Tues. . | 17 57 30 | 11 Mar. (70) . . | 3 Tues. . | 268-4003 | 4148 |
| 26 Mar. (85) . . | 5 Thur. . | 0 10 0 | 28 Feb. (59) . . | 0 Sat. . | 144-0838 | 4149 |
| 25 Mar. (85) . . | 6 Fri. . | 6 22 30 | 18 Mar. (78) . . | 6 Fri. . | 178-7233 | 4150 |
| 25 Mar. (84) . . | 0 Sat. . | 12 35 0 | 7 Mar. (66) . . | 3 Tues. . | 54-4067 | 4151 |
| 25 Mar. (84) . . | 1 Sun. . | 18 47 30 | 25 Feb. (56) . . | 1 Sun. . | 268-7219 | 4152 |
| 26 Mar. (85) . . | 3 Tues. . | 1 0 0 | 16 Mar. (75) . . | 0 Sat. . | 363-3615 | 4153 |
| 25 Mar. (85) . . | 4 Wed. . | 7 12 30 | 4 Mar. (64) . . | 4 Wed. . | 179-0449 | 4154 |
| 25 Mar. (84) . . | 5 Thur. . | 13 25 0 | 23 Mar. (82) . . | 3 Tues. . | 213-6845 | 4155 |
| 25 Mar. (84) . . | 6 Fri. . | 19 37 30 | 12 Mar. (71) . . | 0 Sat. . | 89-3679 | 4156 |
| 26 Mar. (85) . . | 1 Sun. . | 1 50 0 | 2 Mar. (61) . . | 5 Thur. . | 303-6832 | 4157 |
| 25 Mar. (85) . . | 2 Mon. . | 8 2 30 | 19 Mar. (79) . . | 3 Tues. . | 9990-6909 § | 4158 |
| 25 Mar. (84) . . | 3 Tues. . | 14 15 0 | 9 Mar. (68) . . | 1 Sun. . | 214-0062 | 4159 |
| 25 Mar. (84) . . | 4 Wed. . | 20 27 30 | 26 Feb. (57) . . | 5 Thur. . | 89-6896 | 4160 |
| 26 Mar. (85) . . | 6 Fri. . | 2 40 0 | 17 Mar. (76) . . | 4 Wed. . | 124-3292 | 4161 |
| 25 Mar. (85) . . | 0 Sat. . | 8 52 30 | 5 Mar. (65) . . | 1 Sun. . | 0-0126 | 4162 |
| 25 Mar. (84) . . | 1 Sun. . | 15 5 0 | 24 Mar. (83) . . | 0 Sat. . | 34-6522 | 4163 |
| 25 Mar. (84) . . | 2 Mon. . | 21 17 30 | 14 Mar. (73) . . | 5 Thur. . | 248-9675 | 4164 |
| 26 Mar. (85) . . | 4 Wed. . | 3 30 0 | 3 Mar. (62) . . | 2 Mon. . | 124-6508 | 4165 |
| 25 Mar. (85) . . | 5 Thur. . | 9 42 30 | 21 Mar. (81) . . | 1 Sun. . | 159-2905 | 4166 |
| 25 Mar. (84) . . | 6 Fri. . | 15 55 0 | 10 Mar. (69) . . | 5 Thur. . | 34-9739 | 4167 |
| 25 Mar. (84) . . | 0 Sat. . | 22 7 30 | 28 Feb. (59) . . | 3 Tues. . | 249-2892 | 4168 |
| 26 Mar. (85) . . | 2 Mon. . | 4 20 0 | 19 Mar. (78) . . | 2 Mon. . | 283-9288 | 4169 |
| 25 Mar. (85) . . | 3 Tues. . | 10 32 30 | 7 Mar. (67) . . | 6 Fri. . | 159-6122 | 4170 |

§ As a mean tithi Chaitra Sukla 1 was expunged. The civil day corresponding to it, i.e., the first day of the luni-solar year was as given in cols. 19, 20.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4171 | 992 | 1127 | 476 | 244-45 | 1069-70 | 43 Saumya . | 45 Virōdhakṛit . | 1 Chaitra . |
| 4172 | 993 | 1128 | 477 | 245-46 | 1070-71 | 44 Sādhārāṇa . | 46 Paridhāvin . | ... |
| 4173 | 994 | 1129 | 478 | 246-47 | 1071-72 | 45 Virōdhakṛit . | 47 Pramādin . | 10 Pausa . |
| 4174 | 995 | 1130 | 479 | 247-48 | *1072-73 | 46 Paridhāvin . | 48 Ānanda . | ... |
| 4175 | 996 | 1131 | 480 | 248-49 | 1073-74 | 47 Pramādin . | 49 Rākshasa . | ... |
| 4176 | 997 | 1132 | 481 | 249-50 | 1074-75 | 48 Ānanda . | 50 Anala . | 6 Bhādrapada |
| 4177 | 998 | 1133 | 482 | 250-51 | 1075-76 | 49 Rākshasa . | 51 Piṅgala † . | ... |
| 4178 | 999 | 1134 | 483 | 251-52 | *1076-77 | 50 Anala . | 53 Siddhārthin . | ... |
| 4179 | 1000 | 1135 | 484 | 252-53 | 1077-78 | 51 Piṅgala . | 54 Raudra . | 3 Jyēshṭha . |
| 4180 | 1001 | 1136 | 485 | 253-54 | 1078-79 | 52 Kālayukta . | 55 Durmatī . | ... |
| 4181 | 1002 | 1137 | 486 | 254-55 | 1079-80 | 53 Siddhārthin . | 56 Dundubhi . | 11 Māgha . |
| 4182 | 1003 | 1138 | 487 | 255-56 | *1080-81 | 54 Raudra . | 57 Rudhirōdgārin | ... |
| 4183 | 1004 | 1139 | 488 | 256-57 | 1081-82 | 55 Durmatī . | 58 Raktāksha . | ... |
| 4184 | 1005 | 1140 | 489 | 257-58 | 1082-83 | 56 Dundubhi . | 59 Krōdhana . | 8 Kārttika . |
| 4185 | 1006 | 1141 | 490 | 258-59 | 1083-84 | 57 Rudhirōdgārin | 60 Kshaya . | ... |
| 4186 | 1007 | 1142 | 491 | 259-60 | *1084-85 | 58 Raktāksha . | 1 Prabhava . | ... |
| 4187 | 1008 | 1143 | 492 | 260-61 | 1085-86 | 59 Krōdhana . | 2 Vibhava . | 4 Āshāḍha . |
| 4188 | 1009 | 1144 | 493 | 261-62 | 1086-87 | 60 Kshaya . | 3 Śukla . | ... |
| 4189 | 1010 | 1145 | 494 | 262-63 | 1087-88 | 1 Prabhava . | 4 Pramōda . | ... |
| 4190 | 1011 | 1146 | 495 | 263-64 | *1088-89 | 2 Vibhava . | 5 Prajāpati . | 1 Chaitra . |
| 4191 | 1012 | 1147 | 496 | 264-65 | 1089-90 | 3 Śukla . | 6 Āṅgīras . | ... |
| 4192 | 1013 | 1148 | 497 | 265-66 | 1090-91 | 4 Pramōda . | 7 Śrīmukha . | 9 Mārgaśīra . |
| 4193 | 1014 | 1149 | 498 | 266-67 | 1091-92 | 5 Prajāpati . | 8 Bhāva . | ... |
| 4194 | 1015 | 1150 | 499 | 267-68 | *1092-93 | 6 Āṅgīras . | 9 Yuvan . | ... |
| 4195 | 1016 | 1151 | 500 | 268-69 | 1093-94 | 7 Śrīmukha . | 10 Dhātṛi . | 6 Bhādrapada |

† 52 Kālayukta was suppressed in the north.

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|--|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here= <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 25 Mar. (84) . . | 4 Wed. . | 16 45 0 | 24 Feb. (55) . . | 3 Tues. . | 35-2955 | 4171 |
| 25 Mar. (84) . . | 5 Thur. . | 22 57 30 | 15 Mar. (74) . . | 2 Mon. . | 69-9351 | 4172 |
| 26 Mar. (85) . . | 0 Sat. . | 5 10 0 | 5 Mar. (64) . . | 0 Sat. . | 284-2504 | 4173 |
| 25 Mar. (85) . . | 1 Sun. . | 11 22 30 | 23 Mar. (83) . . | 6 Fri. . | 318-8901 | 4174 |
| 25 Mar. (84) . . | 2 Mon. . | 17 35 0 | 12 Mar. (71) . . | 3 Tues. . | 194-5734 | 4175 |
| 25 Mar. (84) . . | 3 Tues. . | 23 47 30 | 1 Mar. (60) . . | 0 Sat. . | 70-2568 | 4176 |
| 26 Mar. (85) . . | 5 Thur. . | 6 0 0 | 20 Mar. (79) . . | 6 Fri. . | 104-8964 | 4177 |
| 25 Mar. (85) . . | 6 Fri. . | 12 12 30 | 9 Mar. (69) . . | 4 Wed. . | 319-2116 | 4178 |
| 25 Mar. (84) . . | 0 Sat. . | 18 25 0 | 26 Feb. (57) . . | 1 Sun. . | 194-8950 | 4179 |
| 26 Mar. (85) . . | 2 Mon. . | 0 37 30 | 17 Mar. (76) . . | 0 Sat. . | 229-5347 | 4180 |
| 26 Mar. (85) . . | 3 Tues. . | 6 50 0 | 6 Mar. (65) . . | 4 Wed. . | 105-2180 | 4181 |
| 25 Mar. (85) . . | 4 Wed. . | 13 -2 30 | 24 Mar. (84) . . | 3 Tues. . | 139-8576 | 4182 |
| 25 Mar. (84) . . | 5 Thur. . | 19 15 0 | 13 Mar. (72) . . | 0 Sat. . | 15-5410 | 4183 |
| 26 Mar. (85) . . | 0 Sat. . | 1 27 30 | 3 Mar. (62) . . | 5 Thur. . | 229-8563 | 4184 |
| 26 Mar. (85) . . | 1 Sun. . | 7 40 0 | 22 Mar. (81) . . | 4 Wed. . | 264-4959 | 4185 |
| 25 Mar. (85) . . | 2 Mon. . | 13 52 30 | 10 Mar. (70) . . | 1 Sun. . | 140-1793 | 4186 |
| 25 Mar. (84) . . | 3 Tues. . | 20 5 0 | 27 Feb. (58) . . | 5 Thur. . | 15-8627 | 4187 |
| 26 Mar. (85) . . | 5 Thur. . | 2 17 30 | 18 Mar. (77) . . | 4 Wed. . | 50-5023 | 4188 |
| 26 Mar. (85) . . | 6 Fri. . | 8 30 0 | 8 Mar. (67) . . | 2 Mon. . | 264-8176 | 4189 |
| 25 Mar. (85) . . | 0 Sat. . | 14 42 30 | 25 Feb. (56) . . | 6 Fri. . | 140-5009 | 4190 |
| 25 Mar. (84) . . | 1 Sun. . | 20 55 0 | 16 Mar. (74) . . | 5 Thur. . | 175-1405 | 4191 |
| 26 Mar. (85) . . | 3 Tues. . | 3 7 30 | 4 Mar. (63) . . | 2 Mon. . | 50-8239 | 4192 |
| 26 Mar. (85) . . | 4 Wed. . | 9 20 0 | 23 Mar. (62) . . | 1 Sun. . | 85-4636 | 4193 |
| 25 Mar. (85) . . | 5 Thur. . | 15 32 30 | 12 Mar. (72) . . | 6 Fri. . | 299-7788 | 4194 |
| 25 Mar. (84) . . | 6 Fri. . | 21 45 0 | 1 Mar. (60) . . | 3 Tues. . | 175-4622 | 4195 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4196 | 1017 | 1152 | 501 | 269-70 | 1094-95 | 8 Bhāva . . | 11 Īsvara . . | ... |
| 4197 | 1018 | 1153 | 502 | 270-71 | 1095-96 | 9 Yuvan . . | 12 Bahudhānya . | ... |
| 4198 | 1019 | 1154 | 503 | 271-72 | *1096-97 | 10 Dhātṛi . . | 13 Pramāthin . | 3 Jyēshtha † . |
| 4199 | 1020 | 1155 | 504 | 272-73 | 1097-98 | 11 Īsvara . . | 14 Vikrama . . | ... |
| 4200 | 1021 | 1156 | 505 | 273-74 | 1098-99 | 12 Bahudhānya . | 15 Vṛisha . . | 11 Māgha . |
| 4201 | 1022 | 1157 | 506 | 274-75 | 1099-00 | 13 Pramāthin . | 16 Chitrabhānu . | ... |
| 4202 | 1023 | 1158 | 507 | 275-76 | *1100-01 | 14 Vikrama . . | 17 Subhānu . . | ... |
| 4203 | 1024 | 1159 | 508 | 276-77 | 1101-02 | 15 Vṛisha . . | 18 Tārana . . | 8 Kārttika . |
| 4204 | 1025 | 1160 | 509 | 277-78 | 1102-03 | 16 Chitrabhānu . | 19 Pārthiva . . | ... |
| 4205 | 1026 | 1161 | 510 | 278-79 | 1103-04 | 17 Subhānu . . | 20 Vyaya . . | ... |
| 4206 | 1027 | 1162 | 511 | 279-80 | *1104-05 | 18 Tārana . . | 21 Sarvajit . . | 4 Āshāḍha . |
| 4207 | 1028 | 1163 | 512 | 280-81 | 1105-06 | 19 Pārthiva . . | 22 Sarvadhārin . | ... |
| 4208 | 1029 | 1164 | 513 | 281-82 | 1106-07 | 20 Vyaya . . | 23 Virōdhin . . | ... |
| 4209 | 1030 | 1165 | 514 | 282-83 | 1107-08 | 21 Sarvajit . . | 24 Vikṛita . . | 1 Chaitra . |
| 4210 | 1031 | 1166 | 515 | 283-84 | *1108-09 | 22 Sarvadhārin . | 25 Khara . . | ... |
| 4211 | 1032 | 1167 | 516 | 284-85 | 1109-10 | 23 Virōdhin . . | 26 Nandana . . | 9 Māghasira . |
| 4212 | 1033 | 1168 | 517 | 285-86 | 1110-11 | 24 Vikṛita . . | 27 Vijaya . . | ... |
| 4213 | 1034 | 1169 | 518 | 286-87 | 1111-12 | 25 Khara . . | 28 Jaya . . | ... |
| 4214 | 1035 | 1170 | 519 | 287-88 | *1112-13 | 26 Nandana . . | 29 Manmatha . . | 6 Bhādrapada |
| 4215 | 1036 | 1171 | 520 | 288-89 | 1113-14 | 27 Vijaya . . | 30 Durmukha . . | ... |
| 4216 | 1037 | 1172 | 521 | 289-90 | 1114-15 | 28 Jaya . . | 31 Hēmalamba . | ... |
| 4217 | 1038 | 1173 | 522 | 290-91 | 1115-16 | 29 Manmatha . . | 32 Vilamba . . | 2 Vaiśākha . |
| 4218 | 1039 | 1174 | 523 | 291-92 | *1116-17 | 30 Durmukha . . | 33 Vikārin . . | ... |
| 4219 | 1040 | 1175 | 524 | 292-93 | 1117-18 | 31 Hēmalamba . | 34 Sārvarin . . | 11 Māgha . |
| 4220 | 1041 | 1176 | 525 | 293-94 | 1118-19 | 32 Vilamba . . | 35 Pāva . . | ... |

By the "Indian Calendar" 2 Vaiśākha was intercalated.

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|--|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | α (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 26 Mar. (85) . . | 1 Sun. . | 3 57 30 | 20 Mar. (79) . . | 2 Mon. . | 210-1018 | 4196 |
| 26 Mar. (85) . . | 2 Mon. . | 10 10 0 | 9 Mar. (68) . . | 6 Fri. . | 85-7852 | 4197 |
| 25 Mar. (85) . . | 3 Tues. . | 16 22 30 | 27 Feb. (58) . . | 4 Wed. . | 300-1005 | 4198 |
| 25 Mar. (84) . . | 4 Wed. . | 22 35 0 | 16 Mar. (75) . . | 2 Mon. . | 9996-1082† | 4199 |
| 26 Mar. (85) . . | 6 Fri. . | 4 47 30 | 6 Mar. (65) . . | 0 Sat. . | 210-4235 | 4200 |
| 26 Mar. (85) . . | 0 Sat. . | 11 0 0 | 25 Mar. (84) . . | 6 Fri. . | 245-0630 | 4201 |
| 25 Mar. (85) . . | 1 Sun. . | 17 12 30 | 13 Mar. (73) . . | 3 Tues. . | 120-7464 | 4202 |
| 25 Mar. (84) . . | 2 Mon. . | 23 25 0 | 2 Mar. (61) . . | 0 Sat. . | 9996-4298† | 4203 |
| 26 Mar. (85) . . | 4 Wed. . | 5 37 30 | 21 Mar. (80) . . | 6 Fri. . | 31-0694 | 4204 |
| 26 Mar. (85) . . | 5 Thur. . | 11 50 0 | 11 Mar. (70) . . | 4 Wed. . | 245-3847 | 4205 |
| 25 Mar. (85) . . | 6 Fri. . | 18 2 30 | 28 Feb. (59) . . | 1 Sun. . | 121-0681 | 4206 |
| 26 Mar. (85) . . | 1 Sun. . | 0 15 0 | 18 Mar. (77) . . | 0 Sat. . | 155-7077 | 4207 |
| 26 Mar. (85) . . | 2 Mon. . | 6 27 30 | 7 Mar. (66) . . | 4 Wed. . | 31-3911 | 4208 |
| 26 Mar. (85) . . | 3 Tues. . | 12 40 0 | 25 Feb. (56) . . | 2 Mon. . | 245-7063 | 4209 |
| 25 Mar. (85) . . | 4 Wed. . | 18 52 30 | 15 Mar. (75) . . | 1 Sun. . | 280-3460 | 4210 |
| 26 Mar. (85) . . | 6 Fri. . | 1 5 0 | 4 Mar. (63) . . | 5 Thur. . | 156-0293 | 4211 |
| 26 Mar. (85) . . | 0 Sat. . | 7 17 30 | 23 Mar. (82) . . | 4 Wed. . | 190-6690 | 4212 |
| 26 Mar. (85) . . | 1 Sun. . | 13 30 0 | 12 Mar. (71) . . | 1 Sun. . | 66-3524 | 4213 |
| 25 Mar. (85) . . | 2 Mon. . | 19 42 30 | 1 Mar. (61) . . | 6 Fri. . | 280-6676 | 4214 |
| 26 Mar. (85) . . | 4 Wed. . | 1 55 0 | 20 Mar. (79) . . | 5 Thur. . | 315-3072 | 4215 |
| 26 Mar. (85) . . | 5 Thur. . | 8 7 30 | 9 Mar. (68) . . | 2 Mon. . | 190-9905 | 4216 |
| 26 Mar. (85) . . | 6 Fri. . | 14 20 0 | 28 Feb. (57) . . | 6 Fri. . | 66-6740 | 4217 |
| 25 Mar. (85) . . | 0 Sat. . | 20 32 30 | 16 Mar. (76) . . | 5 Thur. . | 101-3136 | 4218 |
| 26 Mar. (85) . . | 2 Mon. . | 2 45 0 | 6 Mar. (65) . . | 3 Tues. . | 315-6288 | 4219 |
| 26 Mar. (85) . . | 3 Tues. . | 8 57 30 | 24 Mar. (83) . . | 1 Sun. . | 11-6365 | 4220 |

† As a mean tithi Chaitra Sukla 1 was expunged. The civil day corresponding to it, i.e., the first day of the luni-solar year was as given in cols. 19, 20.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4221 | 1042 | 1177 | 526 | 294-95 | 1119-20 | 33 Vikārin . | 36 Subhakṛit . | ... |
| 4222 | 1043 | 1178 | 527 | 295-96 | *1120-21 | 34 Śārvarin . | 37 Śōbhana . | 7 Āśvina |
| 4223 | 1044 | 1179 | 528 | 296-97 | 1121-22 | 35 Plava . | 38 Krōḍhin . | ... |
| 4224 | 1045 | 1180 | 529 | 297-98 | 1122-23 | 36 Subhakṛit . | 39 Viśvāvasu . | ... |
| 4225 | 1046 | 1181 | 530 | 298-99 | 1123-24 | 37 Śōbhana . | 40 Parābhava . | 4 Āshāḍha . |
| 4226 | 1047 | 1182 | 531 | 299-00 | *1124-25 | 38 Krōḍhin . | 41 Plavaṅga . | ... |
| 4227 | 1048 | 1183 | 532 | 300-01 | 1125-26 | 39 Viśvāvasu . | 42 Kīlaka . | 12 Phālguna . |
| 4228 | 1049 | 1184 | 533 | 301-02 | 1126-27 | 40 Parābhava . | 43 Saumya . | ... |
| 4229 | 1050 | 1185 | 534 | 302-03 | 1127-28 | 41 Plavaṅga . | 44 Sādhāraṇa . | ... |
| 4230 | 1051 | 1186 | 535 | 303-04 | *1128-29 | 42 Kīlaka . | 45 Virōdhakṛit . | 9 Mārgaśira . |
| 4231 | 1052 | 1187 | 536 | 304-05 | 1129-30 | 43 Saumya . | 46 Paridhāvin . | ... |
| 4232 | 1053 | 1188 | 537 | 305-06 | 1130-31 | 44 Sādhāraṇa . | 47 Pramādin . | ... |
| 4233 | 1054 | 1189 | 538 | 306-07 | 1131-32 | 45 Virōdhakṛit . | 48 Ānanda . | 6 Bhādrapada |
| 4234 | 1055 | 1190 | 539 | 307-08 | *1132-33 | 46 Paridhāvin . | 49 Rākshasa . | ... |
| 4235 | 1056 | 1191 | 540 | 308-09 | 1133-34 | 47 Pramādin . | 50 Anala . | ... |
| 4236 | 1057 | 1192 | 541 | 309-10 | 1134-35 | 48 Ānanda . | 51 Piṅgala . | 2 Vaiśākha . |
| 4237 | 1058 | 1193 | 542 | 310-11 | 1135-36 | 49 Rākshasa . | 52 Kālayukta . | ... |
| 4238 | 1059 | 1194 | 543 | 311-12 | *1136-37 | 50 Anala . | 53 Siddhārthin . | 11 Māgha . |
| 4239 | 1060 | 1195 | 544 | 312-13 | 1137-38 | 51 Piṅgala . | 54 Raudra . | ... |
| 4240 | 1061 | 1196 | 545 | 313-14 | 1138-39 | 52 Kālayukta . | 55 Durmati . | ... |
| 4241 | 1062 | 1197 | 546 | 314-15 | 1139-40 | 53 Siddhārthin . | 56 Dundubhi . | 7 Āśvina . |
| 4242 | 1063 | 1198 | 547 | 315-16 | *1140-41 | 54 Raudra . | 57 Rudhirōdgārin . | ... |
| 4243 | 1064 | 1199 | 548 | 316-17 | 1141-42 | 55 Durmati . | 58 Raktāksha . | ... |
| 4244 | 1065 | 1200 | 549 | 317-18 | 1142-43 | 56 Dundubhi . | 59 Krōḍhana . | 4 Āshāḍha . |
| 4245 | 1066 | 1201 | 550 | 318-19 | 1143-44 | 57 Rudhirōdgārin . | 60 Kahaya . | ... |

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-----------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | α (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 26 Mar. (85) . . | 4 Wed. . . | 15 10 0 | 14 Mar. (73) . . | 6 Fri. . . | 225-9518 | 4221 |
| 25 Mar. (85) . . | 5 Thur. . . | 21 22 30 | 2 Mar. (62) . . | 3 Tues. . . | 101-6352 | 4222 |
| 26 Mar. (85) . . | 0 Sat. . . | 3 35 0 | 21 Mar. (80) . . | 2 Mon. . . | 130-2748 | 4223 |
| 26 Mar. (85) . . | 1 Sun. . . | 9 47 30 | 10 Mar. (69) . . | 6 Fri. . . | 11-9582 | 4224 |
| 26 Mar. (85) . . | 2 Mon. . . | 16 0 0 | 28 Feb. (59) . . | 4 Wed. . . | 226-2735 | 4225 |
| 25 Mar. (85) . . | 3 Tues. . . | 22 12 30 | 18 Mar. (78) . . | 3 Tues. . . | 260-9131 | 4226 |
| 26 Mar. (85) . . | 5 Thur. . . | 4 25 0 | 7 Mar. (66) . . | 0 Sat. . . | 136-5965 | 4227 |
| 26 Mar. (85) . . | 6 Fri. . . | 10 37 30 | 26 Mar. (85) . . | 6 Fri. . . | 171-2360 | 4228 |
| 26 Mar. (85) . . | 0 Sat. . . | 16 50 0 | 15 Mar. (74) . . | 3 Tues. . . | 46-9195 | 4229 |
| 25 Mar. (85) . . | 1 Sun. . . | 23 2 30 | 4 Mar. (64) . . | 1 Sun. . . | 261-2348 | 4230 |
| 26 Mar. (85) . . | 3 Tues. . . | 5 15 0 | 23 Mar. (82) . . | 0 Sat. . . | 295-8744 | 4231 |
| 26 Mar. (85) . . | 4 Wed. . . | 11 27 30 | 12 Mar. (71) . . | 4 Wed. . . | 171-5578 | 4232 |
| 26 Mar. (85) . . | 5 Thur. . . | 17 40 0 | 1 Mar. (60) . . | 1 Sun. . . | 47-2411 | 4233 |
| 25 Mar. (85) . . | 6 Fri. . . | 23 52 30 | 19 Mar. (79) . . | 0 Sat. . . | 81-8807 | 4234 |
| 26 Mar. (85) . . | 1 Sun. . . | 6 5 0 | 9 Mar. (68) . . | 5 Thur. . . | 296-1960 | 4235 |
| 26 Mar. (85) . . | 2 Mon. . . | 12 17 30 | 26 Feb. (57) . . | 2 Mon. . . | 171-8794 | 4236 |
| 26 Mar. (85) . . | 3 Tues. . . | 18 30 0 | 17 Mar. (76) . . | 1 Sun. . . | 206-5190 | 4237 |
| 26 Mar. (86) . . | 5 Thur. . . | 0 42 30 | 5 Mar. (65) . . | 5 Thur. . . | 82-2024 | 4238 |
| 26 Mar. (85) . . | 6 Fri. . . | 6 55 0 | 24 Mar. (83) . . | 4 Wed. . . | 116-8420 | 4239 |
| 26 Mar. (85) . . | 0 Sat. . . | 13 7 30 | 14 Mar. (73) . . | 2 Mon. . . | 331-1573 | 4240 |
| 26 Mar. (85) . . | 1 Sun. . . | 19 20 0 | 3 Mar. (62) . . | 6 Fri. . . | 206-8407 | 4241 |
| 26 Mar. (86) . . | 3 Tues. . . | 1 32 30 | 21 Mar. (81) . . | 5 Thur. . . | 241-4803 | 4242 |
| 26 Mar. (85) . . | 4 Wed. . . | 7 45 0 | 10 Mar. (69) . . | 2 Mon. . . | 117-1637 | 4243 |
| 26 Mar. (85) . . | 5 Thur. . . | 13 57 30 | 28 Feb. (59) . . | 0 Sat. . . | 331-4790 | 4244 |
| 26 Mar. (85) . . | 6 Fri. . . | 20 10 0 | 18 Mar. (77) . . | 5 Thur. . . | 27-4867 | 4245 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4246 | 1067 | 1202 | 551 | 319-20 | *1144-45 | 58 Raktāksha . | 1 Prabhava . | 12 Phālguna . |
| 4247 | 1068 | 1203 | 552 | 320-21 | 1145-46 | 59 Krōdhana . | 2 Vibhava . | ... |
| 4248 | 1069 | 1204 | 553 | 321-22 | 1146-47 | 60 Kahaya . | 3 Śukla . | ... |
| 4249 | 1070 | 1205 | 554 | 322-23 | 1147-48 | 1 Prabhava . | 4 Pramōda . | 9 Mārgasīra . |
| 4250 | 1071 | 1206 | 555 | 323-24 | *1148-49 | 2 Vibhava . | 5 Prajāpati . | ... |
| 4251 | 1072 | 1207 | 556 | 324-25 | 1149-50 | 3 Śukla . | 6 Aṅgiras . | ... |
| 4252 | 1073 | 1208 | 557 | 325-26 | 1150-51 | 4 Pramōda . | 7 Śrīmukha . | 5 Śrāvapa . |
| 4253 | 1074 | 1209 | 558 | 326-27 | 1151-52 | 5 Prajāpati . | 8 Bhāva . | ... |
| 4254 | 1075 | 1210 | 559 | 327-28 | *1152-53 | 6 Aṅgiras . | 9 Yuvan . | ... |
| 4255 | 1076 | 1211 | 560 | 328-29 | 1153-54 | 7 Śrīmukha . | 10 Dhātṛi . | 2 Vaiśākha . |
| 4256 | 1077 | 1212 | 561 | 329-30 | 1154-55 | 8 Bhāva . | 11 Iśvara . | ... |
| 4257 | 1078 | 1213 | 562 | 330-31 | 1155-56 | 9 Yuvan . | 12 Bahudhānya . | 10 Pausha . |
| 4258 | 1079 | 1214 | 563 | 331-32 | *1156-57 | 10 Dhātṛi . | 13 Pramāthin . | ... |
| 4259 | 1080 | 1215 | 564 | 332-33 | 1157-58 | 11 Iśvara . | 14 Vikrama . | ... |
| 4260 | 1081 | 1216 | 565 | 333-34 | 1158-59 | 12 Bahudhānya . | 15 Vṛisha . | 7 Āsvina . |
| 4261 | 1082 | 1217 | 566 | 334-35 | 1159-60 | 13 Pramāthin . | 16 Chitrabhānu . | ... |
| 4262 | 1083 | 1218 | 567 | 335-36 | *1160-61 | 14 Vikrama . | 17 Subhānu* | ... |
| 4263 | 1084 | 1219 | 568 | 336-37 | 1161-62 | 15 Vṛisha . | 19 Pārthiva . | 3 Jyēshtha . |
| 4264 | 1085 | 1220 | 569 | 337-38 | 1162-63 | 16 Chitrabhānu . | 20 Vyaya . | ... |
| 4265 | 1086 | 1221 | 570 | 338-39 | 1163-64 | 17 Subhānu . | 21 Sarvajit . | 12 Phālguna . |
| 4266 | 1087 | 1222 | 571 | 339-40 | *1164-65 | 18 Tārāpa . | 22 Sarvadhārin . | ... |
| 4267 | 1088 | 1223 | 572 | 340-41 | 1165-66 | 19 Pārthiva . | 23 Virōdhin . | ... |
| 4268 | 1089 | 1224 | 573 | 341-42 | 1166-67 | 20 Vyaya . | 24 Vikṛita . | 8 Kārttika . |
| 4269 | 1090 | 1225 | 574 | 342-43 | 1167-68 | 21 Sarvajit . | 25 Khara . | ... |
| 4270 | 1091 | 1226 | 575 | 343-44 | *1168-69 | 22 Sarvadhārin . | 26 Nandana . | ... |

* 18 Tārāpa was suppressed in the north.

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE . | | | | | | | Kali year. |
|-----------------------|-----------|-------------------------------|---|-----------|---------------------------------------|------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 26 Mar. (86) . . | 1 Sun. . | 2 22 30 | 7 Mar. (67) . . | 3 Tues. . | 241-8019 | 4246 | |
| 26 Mar. (85) . . | 2 Mon. . | 8 35 0 | 26 Mar. (85) . . | 2 Mon. . | 276-4415 | 4247 | |
| 26 Mar. (85) . . | 3 Tues. . | 14 47 30 | 15 Mar. (74) . . | 6 Fri. . | 152-1249 | 4248 | |
| 26 Mar. (85) . . | 4 Wed. . | 21 0 0 | 4 Mar. (63) . . | 3 Tues. . | 27-8084 | 4249 | |
| 26 Mar. (86) . . | 6 Fri. . | 3 12 30 | 22 Mar. (82) . . | 2 Mon. . | 62-4479 | 4250 | |
| 26 Mar. (85) . . | 0 Sat. . | 9 25 0 | 12 Mar. (71) . . | 0 Sat. . | 276-7631 | 4251 | |
| 26 Mar. (85) . . | 1 Sun. . | 15 37 30 | 1 Mar. (60) . . | 4 Wed. . | 152-4465 | 4252 | |
| 26 Mar. (85) . . | 2 Mon. . | 21 50 0 | 20 Mar. (79) . . | 3 Tues. . | 187-0861 | 4253 | |
| 26 Mar. (86) . . | 4 Wed. . | 4 2 30 | 8 Mar. (68) . . | 0 Sat. . | 62-7695 | 4254 | |
| 26 Mar. (85) . . | 5 Thur. . | 10 15 0 | 26 Feb. (57) . . | 5 Thur. . | 277-0848 | 4255 | |
| 26 Mar. (85) . . | 6 Fri. . | 16 27 30 | 17 Mar. (76) . . | 4 Wed. . | 311-7245 | 4256 | |
| 26 Mar. (85) . . | 0 Sat. . | 22 40 0 | 6 Mar. (65) . . | 1 Sun. . | 187-4078 | 4257 | |
| 26 Mar. (86) . . | 2 Mon. . | 4 52 30 | 24 Mar. (84) . . | 0 Sat. . | 222-0474 | 4258 | |
| 26 Mar. (85) . . | 3 Tues. . | 11 5 0 | 13 Mar. (72) . . | 4 Wed. . | 98-1308 | 4259 | |
| 26 Mar. (85) . . | 4 Wed. . | 17 17 30 | 3 Mar. (62) . . | 2 Mon. . | 312-0461 | 4260 | |
| 26 Mar. (85) . . | 5 Thur. . | 23 30 0 | 21 Mar. (80) . . | 0 Sat. . | 8-0538 | 4261 | |
| 26 Mar. (86) . . | 0 Sat. . | 5 42 30 | 10 Mar. (70) . . | 5 Thur. . | 222-3691 | 4262 | |
| 26 Mar. (85) . . | 1 Sun. . | 11 55 0 | 27 Feb. (58) . . | 2 Mon. . | 98-4525 | 4263 | |
| 26 Mar. (85) . . | 2 Mon. . | 18 7 30 | 18 Mar. (77) . . | 1 Sun. . | 132-6822 | 4264 | |
| 27 Mar. (86) . . | 4 Wed. . | 0 20 0 | 7 Mar. (66) . . | 5 Thur. . | 8-3755 | 4265 | |
| 26 Mar. (86) . . | 5 Thur. . | 6 32 30 | 25 Mar. (85) . . | 4 Wed. . | 43-0151 | 4266 | |
| 26 Mar. (85) . . | 6 Fri. . | 12 45 0 | 15 Mar. (74) . . | 2 Mon. . | 257-3504 | 4267 | |
| 26 Mar. (85) . . | 0 Sat. . | 18 57 30 | 4 Mar. (63) . . | 6 Fri. . | 133-0138 | 4268 | |
| 27 Mar. (86) . . | 2 Mon. . | 1 10 0 | 23 Mar. (82) . . | 5 Thur. . | 167-6434 | 4269 | |
| 26 Mar. (86) . . | 3 Tues. . | 7 22 30 | 11 Mar. (71) . . | 2 Mon. . | 43-3368 | 4270 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitradī Vikrama. | Mēshādī solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4271 | 1002 | 1227 | 576 | 344-45 | 1169-70 | 23 Virōdhin . | 27 Vijaya . | 5 Śrāvapa . |
| 4272 | 1093 | 1228 | 577 | 345-46 | 1170-71 | 24 Vikṛita . | 28 Jaya . | ... |
| 4273 | 1094 | 1229 | 578 | 346-47 | 1171-72 | 25 Khara . | 29 Manmatha . | ... |
| 4274 | 1095 | 1230 | 579 | 347-48 | *1172-73 | 26 Nandana . | 30 Durmukha . | 2 Vaiśākha . |
| 4275 | 1096 | 1231 | 580 | 348-49 | 1173-74 | 27 Vijaya . | 31 Hēmalamba . | ... |
| 4276 | 1097 | 1232 | 581 | 349-50 | 1174-75 | 28 Jaya . | 32 Vilamba . | 10 Pausa . |
| 4277 | 1098 | 1233 | 582 | 350-51 | 1175-76 | 29 Manmatha . | 33 Vikārin . | ... |
| 4278 | 1099 | 1234 | 583 | 351-52 | *1176-77 | 30 Durmukha . | 34 Śārvarin . | ... |
| 4279 | 1100 | 1235 | 584 | 352-53 | 1177-78 | 31 Hēmalamba . | 35 Plava . | 7 Āsvina . |
| 4280 | 1101 | 1236 | 585 | 353-54 | 1178-79 | 32 Vilamba . | 36 Śubhakṛit . | ... |
| 4281 | 1102 | 1237 | 586 | 354-55 | 1179-80 | 33 Vikārin . | 37 Śōbhana . | ... |
| 4282 | 1103 | 1238 | 587 | 355-56 | *1180-81 | 34 Śārvarin . | 38 Krōdhin . | 3 Jyēshtha . |
| 4283 | 1104 | 1239 | 588 | 356-57 | 1181-82 | 35 Plava . | 39 Viśvāvasu . | ... |
| 4284 | 1105 | 1240 | 589 | 357-58 | 1182-83 | 36 Śubhakṛit . | 40 Parābhava . | 12 Phālguna . |
| 4285 | 1106 | 1241 | 590 | 358-59 | 1183-84 | 37 Śōbhana . | 41 Plavaṅga . | ... |
| 4286 | 1107 | 1242 | 591 | 359-60 | *1184-85 | 38 Krōdhin . | 42 Kilaka . | ... |
| 4287 | 1108 | 1243 | 592 | 360-61 | 1185-86 | 39 Viśvāvasu . | 43 Saumya . | 8 Kārttika . |
| 4288 | 1109 | 1244 | 593 | 361-62 | 1186-87 | 40 Parābhava . | 44 Sādhāraṇa . | ... |
| 4289 | 1110 | 1245 | 594 | 362-63 | 1187-88 | 41 Plavaṅga . | 45 Virōdhakṛit . | ... |
| 4290 | 1111 | 1246 | 595 | 363-64 | *1188-89 | 42 Kilaka . | 46 Paridhāvin . | 5 Śrāvapa . |
| 4291 | 1112 | 1247 | 596 | 364-65 | 1189-90 | 43 Saumya . | 47 Pramādin . | ... |
| 4292 | 1113 | 1248 | 597 | 365-66 | 1190-91 | 44 Sādhāraṇa . | 48 Ānanda . | ... |
| 4293 | 1114 | 1249 | 598 | 366-67 | 1191-92 | 45 Virōdhakṛit . | 49 Rākshasa . | 1 Chaitra . |
| 4294 | 1115 | 1250 | 599 | 367-68 | *1192-93 | 46 Paridhāvin . | 50 Anala . | ... |
| 4295 | 1116 | 1251 | 600 | 368-69 | 1193-94 | 47 Pramādin . | 51 Piṅgala . | 10 Pausa . |

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|------------------------------|---|-------------|--|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Māsa-samkrānti. | Day and month, A.D. | Week-day. | α (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 26 Mar. (85) . . . | 4 Wed. . . | 13 35 0 | 1 Mar. (60) . . . | 0 Sat. . . | 257-6521 | 4271 |
| 26 Mar. (85) . . . | 5 Thur. . . | 19 47 30 | 20 Mar. (79) . . . | 6 Fri. . . | 292-2917 | 4272 |
| 27 Mar. (86) . . . | 0 Sat. . . | 2 0 0 | 9 Mar. (68) . . . | 3 Tues. . . | 167-9751 | 4273 |
| 26 Mar. (86) . . . | 1 Sun. . . | 8 12 30 | 26 Feb. (57) . . . | 0 Sat. . . | 43-6684 | 4274 |
| 26 Mar. (85) . . . | 2 Mon. . . | 14 25 0 | 16 Mar. (75) . . . | 6 Fri. . . | 78-2981 | 4275 |
| 26 Mar. (85) . . . | 3 Tues. . . | 20 37 30 | 6 Mar. (65) . . . | 4 Wed. . . | 292-6133 | 4276 |
| 27 Mar. (86) . . . | 5 Thur. . . | 2 50 0 | 25 Mar. (84) . . . | 3 Tues. . . | 327-2528 | 4277 |
| 26 Mar. (86) . . . | 6 Fri. . . | 9 2 30 | 13 Mar. (73) . . . | 0 Sat. . . | 202-9372 | 4278 |
| 26 Mar. (85) . . . | 0 Sat. . . | 15 15 0 | 2 Mar. (61) . . . | 4 Wed. . . | 78-6196 | 4279 |
| 26 Mar. (85) . . . | 1 Sun. . . | 21 27 30 | 21 Mar. (80) . . . | 3 Tues. . . | 113-2593 | 4280 |
| 27 Mar. (86) . . . | 3 Tues. . . | 3 40 0 | 11 Mar. (70) . . . | 1 Sun. . . | 327-5745 | 4281 |
| 26 Mar. (86) . . . | 4 Wed. . . | 9 52 30 | 28 Feb. (59) . . . | 5 Thur. . . | 203-2579 | 4282 |
| 26 Mar. (85) . . . | 5 Thur. . . | 16 5 0 | 18 Mar. (77) . . . | 4 Wed. . . | 237-8975 | 4283 |
| 26 Mar. (85) . . . | 6 Fri. . . | 22 17 30 | 7 Mar. (66) . . . | 1 Sun. . . | 113-5809 | 4284 |
| 27 Mar. (86) . . . | 1 Sun. . . | 4 30 0 | 26 Mar. (85) . . . | 0 Sat. . . | 148-2205 | 4285 |
| 26 Mar. (86) . . . | 2 Mon. . . | 10 42 30 | 14 Mar. (74) . . . | 4 Wed. . . | 23-9039 | 4286 |
| 26 Mar. (85) . . . | 3 Tues. . . | 16 55 0 | 4 Mar. (63) . . . | 2 Mon. . . | 238-2192 | 4287 |
| 26 Mar. (85) . . . | 4 Wed. . . | 23 7 30 | 23 Mar. (82) . . . | 1 Sun. . . | 272-8588 | 4288 |
| 27 Mar. (86) . . . | 6 Fri. . . | 5 20 0 | 12 Mar. (71) . . . | 5 Thur. . . | 148-5422 | 4289 |
| 26 Mar. (86) . . . | 0 Sat. . . | 11 32 30 | 29 Feb. (60) . . . | 2 Mon. . . | 24-2256 | 4290 |
| 26 Mar. (85) . . . | 1 Sun. . . | 17 45 0 | 19 Mar. (78) . . . | 1 Sun. . . | 58-8452 | 4291 |
| 26 Mar. (85) . . . | 2 Mon. . . | 23 57 30 | 9 Mar. (68) . . . | 6 Fri. . . | 273-1865 | 4292 |
| 27 Mar. (86) . . . | 4 Wed. . . | 6 10 0 | 26 Feb. (57) . . . | 3 Tues. . . | 148-8638 | 4293 |
| 26 Mar. (86) . . . | 5 Thur. . . | 12 22 30 | 16 Mar. (76) . . . | 2 Mon. . . | 183-5035 | 4294 |
| 26 Mar. (85) . . . | 6 Fri. . . | 18 35 0 | 5 Mar. (64) . . . | 6 Fri. . . | 59-1868 | 4295 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4296 | 1117 | 1252 | 601 | 369-70 | 1194-95 | 48 Ānanda . | 52 Kālayukta . | ... |
| 4297 | 1118 | 1253 | 602 | 370-71 | 1195-96 | 49 Rākshasa . | 53 Siddhārthin . | ... |
| 4298 | 1119 | 1254 | 603 | 371-72 | *1196-97 | 50 Anala . | 54 Raudra . | 6 Bhādrapada |
| 4299 | 1120 | 1255 | 604 | 372-73 | 1197-98 | 51 Pīngala . | 55 Durmati . | ... |
| 4300 | 1121 | 1256 | 605 | 373-74 | 1198-99 | 52 Kālayukta . | 56 Dundubhi . | ... |
| 4301 | 1122 | 1257 | 606 | 374-75 | 1199-00 | 53 Siddhārthin . | 57 Rudhīrōdgārin | 3 Jyēṣṭha |
| 4302 | 1123 | 1258 | 607 | 375-76 | *1200-01 | 54 Raudra . | 58 Raktāksha . | ... |
| 4303 | 1124 | 1259 | 608 | 376-77 | 1201-02 | 55 Durmati . | 59 Krōdhana . | 11 Māgha |
| 4304 | 1125 | 1260 | 609 | 377-78 | 1202-03 | 56 Dundubhi . | 60 Kshaya . | ... |
| 4305 | 1126 | 1261 | 610 | 378-79 | 1203-04 | 57 Rudhīrōdgārin | 1 Prabhava . | ... |
| 4306 | 1127 | 1262 | 611 | 379-80 | *1204-05 | 58 Raktāksha . | 2 Vibhava . | 8 Kārttika |
| 4307 | 1128 | 1263 | 612 | 380-81 | 1205-06 | 59 Krōdhana . | 3 Śukla . | ... |
| 4308 | 1129 | 1264 | 613 | 381-82 | 1206-07 | 60 Kshaya . | 4 Pramōda . | ... |
| 4309 | 1130 | 1265 | 614 | 382-83 | 1207-08 | 1 Prabhava . | 5 Prajāpati . | 5 Śrāvaṇa |
| 4310 | 1131 | 1266 | 615 | 383-84 | *1208-09 | 2 Vibhava . | 6 Āṅgiras . | ... |
| 4311 | 1132 | 1267 | 616 | 384-85 | 1209-10 | 3 Śukla . | 7 Śrīmukha . | ... |
| 4312 | 1133 | 1268 | 617 | 385-86 | 1210-11 | 4 Pramōda . | 8 Bhāva . | 1 Chaitra |
| 4313 | 1134 | 1269 | 618 | 386-87 | 1211-12 | 5 Prajāpati . | 9 Yuvaṇ . | ... |
| 4314 | 1135 | 1270 | 619 | 387-88 | *1212-13 | 6 Āṅgiras . | 10 Dhātṛi . | 10 Pausa |
| 4315 | 1136 | 1271 | 620 | 388-89 | 1213-14 | 7 Śrīmukha . | 11 Īśvara . | ... |
| 4316 | 1137 | 1272 | 621 | 389-90 | 1214-15 | 8 Bhāva . | 12 Bahudhānya . | ... |
| 4317 | 1138 | 1273 | 622 | 390-91 | 1215-16 | 9 Yuvaṇ . | 13 Pramāthin . | 6 Bhādrapada |
| 4318 | 1139 | 1274 | 623 | 391-92 | *1216-17 | 10 Dhātṛi . | 14 Vikrama . | ... |
| 4319 | 1140 | 1275 | 624 | 392-93 | 1217-18 | 11 Īśvara . | 15 Vṛiṣha . | ... |
| 4320 | 1141 | 1276 | 625 | 393-94 | 1218-19 | 12 Bahudhānya . | 16 Chitrabhāna . | 3 Jyēṣṭha |

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|-------------------------------------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here—t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 27 Mar. (86) . . | 1 Sun. . | 0 47 30 | 24 Mar. (83) . . | 5 Thur. . | 93-8264 | 4296 |
| 27 Mar. (86) . . | 2 Mon. . | 7 0 0 | 14 Mar. (73) . . | 3 Tues. . | 308-1417 | 4297 |
| 26 Mar. (86) . . | 3 Tues. . | 13 12 30 | 2 Mar. (62) . . | 0 Sat. . | 183-8251 | 4298 |
| 26 Mar. (85) . . | 4 Wed. . | 19 25 0 | 21 Mar. (80) . . | 6 Fri. . | 218-4647 | 4299 |
| 27 Mar. (86) . . | 6 Fri. . | 1 37 30 | 10 Mar. (69) . . | 3 Tues. . | 94-1481 | 4300 |
| 27 Mar. (86) . . | 0 Sat. . | 7 50 0 | 28 Feb. (59) . . | 1 Sun. . | 308-4634 | 4301 |
| 26 Mar. (86) . . | 1 Sun. . | 14 2 30 | 17 Mar. (77) . . | 6 Fri. . | 4-4711 | 4302 |
| 26 Mar. (85) . . | 2 Mon. . | 20 15 0 | 7 Mar. (66) . . | 4 Wed. . | 218-7864 | 4303 |
| 27 Mar. (86) . . | 4 Wed. . | 2 27 30 | 26 Mar. (85) . . | 3 Tues. . | 253-4359 | 4304 |
| 27 Mar. (86) . . | 5 Thur. . | 8 40 0 | 15 Mar. (74) . . | 0 Sat. . | 129-1004 | 4305 |
| 26 Mar. (86) . . | 6 Fri. . | 14 52 30 | 3 Mar. (63) . . | 4 Wed. . | 4-7927 | 4306 |
| 26 Mar. (85) . . | 0 Sat. . | 21 5 0 | 22 Mar. (81) . . | 3 Tues. . | 39-4324 | 4307 |
| 27 Mar. (86) . . | 2 Mon. . | 3 17 30 | 12 Mar. (71) . . | 1 Sun. . | 253-7477 | 4308 |
| 27 Mar. (86) . . | 3 Tues. . | 9 30 0 | 1 Mar. (60) . . | 5 Thur. . | 129-4311 | 4309 |
| 26 Mar. (86) . . | 4 Wed. . | 15 42 30 | 19 Mar. (79) . . | 4 Wed. . | 164-0707 | 4310 |
| 26 Mar. (85) . . | 5 Thur. . | 21 55 0 | 8 Mar. (67) . . | 1 Sun. . | 39-7540 | 4311 |
| 27 Mar. (86) . . | 0 Sat. . | 4 7 30 | 26 Feb. (57) . . | 6 Fri. . | 254-0603 | 4312 |
| 27 Mar. (86) . . | 1 Sun. . | 10 20 0 | 17 Mar. (76) . . | 5 Thur. . | 288-7089 | 4313 |
| 26 Mar. (86) . . | 2 Mon. . | 16 32 30 | 5 Mar. (65) . . | 2 Mon. . | 164-3923 | 4314 |
| 26 Mar. (85) . . | 3 Tues. . | 22 45 0 | 24 Mar. (83) . . | 1 Sun. . | 199-0319 | 4315 |
| 27 Mar. (86) . . | 5 Thur. . | 4 57 30 | 13 Mar. (72) . . | 5 Thur. . | 74-7152 | 4316 |
| 27 Mar. (86) . . | 6 Fri. . | 11 10 0 | 3 Mar. (62) . . | 3 Tues. . | 269-0306 | 4317 |
| 26 Mar. (86) . . | 0 Sat. . | 17 22 30 | 21 Mar. (81) . . | 2 Mon. . | 323-6702 | 4318 |
| 26 Mar. (85) . . | 1 Sun. . | 23 35 0 | 10 Mar. (69) . . | 6 Fri. . | 199-3535 | 4319 |
| 27 Mar. (86) . . | 3 Tues. . | 5 47 30 | 27 Feb. (58) . . | 3 Tues. . | 75-0369 | 4320 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4321 | 1142 | 1277 | 626 | 394-95 | 1219-20 | 13 Pramāthin . | 17 Subhānu . | ... |
| 4322 | 1143 | 1278 | 627 | 395-96 | *1220-21 | 14 Vikrama . | 18 Tārāṇa . | 11 Māgha . |
| 4323 | 1144 | 1279 | 628 | 396-97 | 1221-22 | 15 Vṛiṣha . | 19 Pārthiva . | ... |
| 4324 | 1145 | 1280 | 629 | 297-98 | 1222-23 | 16 Chitrabhānu . | 20 Vyaya . | ... |
| 4325 | 1146 | 1281 | 630 | 398-99 | 1223-24 | 17 Subhānu . | 21 Sarvajit . | 8 Kārttika . |
| 4326 | 1147 | 1282 | 631 | 399-00 | *1224-25 | 18 Tārāṇa . | 22 Sarvadhārin . | ... |
| 4327 | 1148 | 1283 | 632 | 400-01 | 1225-26 | 19 Pārthiva . | 23 Virōdhin . | ... |
| 4328 | 1149 | 1284 | 633 | 401-02 | 1226-27 | 20 Vyaya . | 24 Vikṛita . | 4 Āshāḍha . |
| 4329 | 1150 | 1285 | 634 | 402-03 | 1227-28 | 21 Sarvajit . | 25 Khara . | ... |
| 4330 | 1151 | 1286 | 635 | 403-04 | *1228-29 | 22 Sarvadhārin . | 26 Nandana . | ... |
| 4331 | 1152 | 1287 | 636 | 404-05 | 1229-30 | 23 Virōdhin . | 27 Vijaya . | 1 Chaitra . |
| 4332 | 1153 | 1288 | 637 | 405-06 | 1230-31 | 24 Vikṛita . | 28 Jaya . | ... |
| 4333 | 1154 | 1289 | 638 | 406-07 | 1231-32 | 25 Khara . | 29 Manmatha . | 9 Mārgaśīra . |
| 4334 | 1155 | 1290 | 639 | 407-08 | *1232-33 | 26 Nandana . | 30 Darmukha . | ... |
| 4335 | 1156 | 1291 | 640 | 408-09 | 1233-34 | 27 Vijaya . | 31 Hēmalamba . | ... |
| 4336 | 1157 | 1292 | 641 | 409-10 | 1234-35 | 28 Jaya . | 32 Vilamba . | 6 Bhādrapada . |
| 4337 | 1158 | 1293 | 642 | 410-11 | 1235-36 | 29 Manmatha . | 33 Vikārin . | ... |
| 4338 | 1159 | 1294 | 643 | 411-12 | *1236-37 | 30 Darmukha . | 34 Sārvarin . | ... |
| 4339 | 1160 | 1295 | 644 | 412-13 | 1237-38 | 31 Hēmalamba . | 35 Plava . | 2 Vaiśākha . |
| 4340 | 1161 | 1296 | 645 | 413-14 | 1238-39 | 32 Vilamba . | 36 Subhakṛit . | ... |
| 4341 | 1162 | 1297 | 646 | 414-15 | 1239-40 | 33 Vikārin . | 37 Śobhana . | 11 Māgha . |
| 4342 | 1163 | 1298 | 647 | 415-16 | *1240-41 | 34 Sārvarin . | 38 Krōdhin . | ... |
| 4343 | 1164 | 1299 | 648 | 416-17 | 1241-42 | 35 Plava . | 39 Viśvāvaṇ . | ... |
| 4344 | 1165 | 1300 | 649 | 417-18 | 1242-43 | 36 Subhakṛit . | 40 Parābhava . | 7 Āśvina . |
| 4345 | 1166 | 1301 | 650 | 418-19 | 1243-44 | 37 Śobhana . | 41 Plavanga . | ... |

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|------------------------------|---|-------------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti | Day and month, A.D. | Week-day. | a (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 27 Mar. (86) . . . | 4 Wed. . . | 12 0 0 | 18 Mar. (77) . . . | 2 Mon. . . | 109-6765 | 4321 |
| 26 Mar. (86) . . . | 5 Thur. . . | 18 12 30 | 7 Mar. (67) . . . | 0 Sat. . . | 323-9918 | 4322 |
| 27 Mar. (86) . . . | 0 Sat. . . | 0 25 0 | 25 Mar. (84) . . . | 5 Thur. . . | 19-9995 | 4323 |
| 27 Mar. (86) . . . | 1 Sun. . . | 6 37 30 | 15 Mar. (74) . . . | 3 Tues. . . | 234-3148 | 4324 |
| 27 Mar. (86) . . . | 2 Mon. . . | 12 50 0 | 4 Mar. (63) . . . | 0 Sat. . . | 109-9982 | 4325 |
| 26 Mar. (86) . . . | 3 Tues. . . | 19 2 30 | 22 Mar. (82) . . . | 6 Fri. . . | 144-6378 | 4326 |
| 27 Mar. (86) . . . | 5 Thur. . . | 1 15 0 | 11 Mar. (70) . . . | 3 Tues. . . | 20-3212 | 4327 |
| 27 Mar. (86) . . . | 6 Fri. . . | 7 27 30 | 1 Mar. (60) . . . | 1 Sun. . . | 234-6365 | 4328 |
| 27 Mar. (86) . . . | 0 Sat. . . | 13 40 0 | 20 Mar. (79) . . . | 0 Sat. . . | 209-2761 | 4329 |
| 26 Mar. (86) . . . | 1 Sun. . . | 19 52 30 | 8 Mar. (68) . . . | 4 Wed. . . | 144-9594 | 4330 |
| 27 Mar. (86) . . . | 3 Tues. . . | 2 5 0 | 25 Feb. (56) . . . | 1 Sun. . . | 20-6428 | 4331 |
| 27 Mar. (86) . . . | 4 Wed. . . | 8 17 30 | 16 Mar. (75) . . . | 0 Sat. . . | 55-2824 | 4332 |
| 27 Mar. (86) . . . | 5 Thur. . . | 14 30 0 | 6 Mar. (65) . . . | 5 Thur. . . | 269-5977 | 4333 |
| 26 Mar. (86) . . . | 6 Fri. . . | 26 42 30 | 24 Mar. (84) . . . | 4 Wed. . . | 304-2373 | 4334 |
| 27 Mar. (86) . . . | 1 Sun. . . | 2 55 0 | 13 Mar. (72) . . . | 1 Sun. . . | 179-9207 | 4335 |
| 27 Mar. (86) . . . | 2 Mon. . . | 9 7 30 | 2 Mar. (61) . . . | 5 Thur. . . | 55-6041 | 4336 |
| 27 Mar. (86) . . . | 3 Tues. . . | 15 20 0 | 21 Mar. (89) . . . | 4 Wed. . . | 90-2437 | 4337 |
| 26 Mar. (86) . . . | 4 Wed. . . | 21 32 30 | 10 Mar. (70) . . . | 2 Mon. . . | 304-5590 | 4338 |
| 27 Mar. (86) . . . | 6 Fri. . . | 3 45 0 | 27 Feb. (58) . . . | 6 Fri. . . | 180-2424 | 4339 |
| 27 Mar. (86) . . . | 0 Sat. . . | 9 57 30 | 18 Mar. (77) . . . | 5 Thur. . . | 214-8820 | 4340 |
| 27 Mar. (86) . . . | 1 Sun. . . | 16 10 0 | 7 Mar. (66) . . . | 2 Mon. . . | 90-5654 | 4341 |
| 26 Mar. (86) . . . | 2 Mon. . . | 22 22 30 | 25 Mar. (85) . . . | 1 Sun. . . | 125-2049 | 4342 |
| 27 Mar. (86) . . . | 4 Wed. . . | 4 35 0 | 14 Mar. (73) . . . | 5 Thur. . . | 0-8884 | 4343 |
| 27 Mar. (86) . . . | 5 Thur. . . | 10 47 30 | 4 Mar. (63) . . . | 3 Tues. . . | 215-2037 | 4344 |
| 27 Mar. (86) . . . | 6 Fri. . . | 17 0 0 | 23 Mar. (82) . . . | 2 Mon. . . | 249-8433 | 4345 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4346 | 1167 | 1302 | 651 | 419-20 | *1244-45 | 38 Krōdhin . | 42 Kilaka . | ... |
| 4347 | 1168 | 1303 | 652 | 420-21 | 1245-46 | 39 Viśvāvasu . | 43 Saumya† . | 4 Āshāḍha . |
| 4348 | 1169 | 1304 | 653 | 421-22 | 1246-47 | 40 Parābhava . | 45 Virōdhakṛit . | ... |
| 4349 | 1170 | 1305 | 654 | 422-23 | 1247-48 | 41 Plavaṅga . | 46 Paridhāvin . | ... |
| 4350 | 1171 | 1306 | 655 | 423-24 | *1248-49 | 42 Kilaka . | 47 Pramādin . | 1 Chaitra . |
| 4351 | 1172 | 1307 | 656 | 424-25 | 1249-50 | 43 Saumya. . | 48 Ānanda . | ... |
| 4352 | 1173 | 1308 | 657 | 425-26 | 1250-51 | 44 Sādhāraṇa . | 49 Rākshasa . | 9 Mārgaśīra . |
| 4353 | 1174 | 1309 | 658 | 426-27 | 1251-52 | 45 Virōdhakṛit . | 50 Anala . | ... |
| 4354 | 1175 | 1310 | 659 | 427-28 | *1252-53 | 46 Paridhāvin . | 51 Piṅgala . | ... |
| 4355 | 1176 | 1311 | 660 | 428-29 | 1253-54 | 47 Pramādin . | 52 Kālayukta . | 6 Bhādrapada |
| 4356 | 1177 | 1312 | 661 | 429-30 | 1254-55 | 48 Ānanda . | 53 Siddhārthīn . | ... |
| 4357 | 1178 | 1313 | 662 | 430-31 | 1255-56 | 49 Rākshasa . | 54 Raudra . | ... |
| 4358 | 1179 | 1314 | 663 | 431-32 | *1256-57 | 50 Anala . | 55 Durmati . | 2 Vaiśākha . |
| 4359 | 1180 | 1315 | 664 | 432-33 | 1257-58 | 51 Piṅgala . | 56 Dundubhi . | ... |
| 4360 | 1181 | 1316 | 665 | 433-34 | 1258-59 | 52 Kālayukta . | 57 Rudhirōdgārin | 11 Māgha . |
| 4361 | 1182 | 1317 | 666 | 434-35 | 1259-60 | 53 Siddhārthīn . | 58 Raktāksha . | ... |
| 4362 | 1183 | 1318 | 667 | 435-36 | *1260-61 | 54 Raudra . | 59 Krōdhana . | ... |
| 4363 | 1184 | 1319 | 668 | 436-37 | 1261-62 | 55 Durmati . | 60 Kshaya . | 7 Āśvina . |
| 4364 | 1185 | 1320 | 669 | 437-38 | 1262-63 | 56 Dundubhi . | 1 Prabhava . | ... * |
| 4365 | 1186 | 1321 | 670 | 438-39 | 1263-64 | 57 Rudhirōdgārin | 2 Vibhava . | ... |
| 4366 | 1187 | 1322 | 671 | 439-40 | *1264-65 | 58 Raktāksha . | 3 Śukla . | 4 Āshāḍha . |
| 4367 | 1188 | 1323 | 672 | 440-41 | 1265-66 | 59 Krōdhana . | 4 Pramōda . | ... |
| 4368 | 1189 | 1324 | 673 | 441-42 | 1266-67 | 60 Kshaya . | 5 Prajāpati . | 12 Phālguna . |
| 4369 | 1190 | 1325 | 674 | 442-43 | 1267-68 | 1 Prabhava . | 6 Āngīras . | ... |
| 4370 | 1191 | 1326 | 675 | 443-44 | *1268-69 | 2 Vibhava . | 7 Śrīmukha . | ... |

† 44, Sādhāraṇa, was suppressed in the north by the mean system, but 45 Virōdhakṛit by the true system. By the latter system the year A.D. 1246-47 was called in the north, "Sādhāraṇa."

LXXVI—Contd.

1 Ārya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|--|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | α (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 26 Mar. (86) . | 0 Sat. . | 23 12 30 | 11 Mar. (71) . | 6 Fri. . | 125-5266 | 4346 |
| 27 Mar. (86) . | 2 Mon. . | 5 25 0 | 28 Feb. (59) . | 3 Tues. . | 1-2100 | 4347 |
| 27 Mar. (86) . | 3 Tues. . | 11 37 30 | 19 Mar. (78) . | 2 Mon. . | 35-8196 | 4348 |
| 27 Mar. (86) . | 4 Wed. . | 17 50 0 | 9 Mar. (68) . | 0 Sat. . | 250-1649 | 4349 |
| 27 Mar. (87) . | 6 Fri. . | 0 2 30 | 26 Feb. (57) . | 4 Wed. . | 125-8482 | 4350 |
| 27 Mar. (86) . | 0 Sat. . | 6 15 0 | 16 Mar. (75) . | 3 Tues. . | 160-4878 | 4351 |
| 27 Mar. (86) . | 1 Sun. . | 12 27 30 | 5 Mar. (64) . | 0 Sat. . | 36-1712 | 4352 |
| 27 Mar. (86) . | 2 Mon. . | 18 40 0 | 24 Mar. (83) . | 6 Fri. . | 70-8109 | 4353 |
| 27 Mar. (87) . | 4 Wed. . | 0 52 30 | 13 Mar. (73) . | 4 Wed. . | 285-1262 | 4354 |
| 27 Mar. (86) . | 5 Thur. . | 7 5 0 | 2 Mar. (61) . | 1 Sun. . | 160-8095 | 4355 |
| 27 Mar. (86) . | 6 Fri. . | 13 17 30 | 21 Mar. (80) . | 0 Sat. . | 195-4491 | 4356 |
| 27 Mar. (86) . | 0 Sat. . | 19 30 9 | 10 Mar. (69) . | 4 Wed. . | 71-1325 | 4357 |
| 27 Mar. (87) . | 2 Mon. . | 1 42 30 | 28 Feb. (59) . | 2 Mon. . | 285-4478 | 4358 |
| 27 Mar. (86) . | 3 Tues. . | 7 55 0 | 18 Mar. (77) . | 1 Sun. . | 320-0874 | 4359 |
| 27 Mar. (86) . | 4 Wed. . | 14 7 30 | 7 Mar. (66) . | 5 Thur. . | 195-7708 | 4360 |
| 27 Mar. (86) . | 5 Thur. . | 20 20 0 | 26 Mar. (85) . | 4 Wed. . | 230-4104 | 4361 |
| 27 Mar. (87) . | 0 Sat. . | 2 32 30 | 14 Mar. (74) . | 1 Sun. . | 106-0938 | 4362 |
| 27 Mar. (86) . | 1 Sun. . | 8 45 0 | 4 Mar. (63) . | 6 Fri. . | 320-4091 | 4363 |
| 27 Mar. (86) . | 2 Mon. . | 14 57 30 | 23 Mar. (81) . | 4 Wed. . | 16-4168 | 4364 |
| 27 Mar. (86) . | 3 Tues. . | 21 10 0 | 13 Mar. (71) . | 2 Mon. . | 230-7321 | 4365 |
| 27 Mar. (87) . | 5 Thur. . | 3 22 30 | 29 Feb. (60) . | 6 Fri. . | 106-4155 | 4366 |
| 27 Mar. (86) . | 6 Fri. . | 9 35 0 | 19 Mar. (78) . | 5 Thur. . | 141-0551 | 4367 |
| 27 Mar. (86) . | 0 Sat. . | 15 47 30 | 8 Mar. (67) . | 2 Mon. . | 16-7384 | 4368 |
| 27 Mar. (86) . | 1 Sun. . | 22 0 0 | 27 Mar. (86) . | 1 Sun. . | 51-3780 | 4369 |
| 27 Mar. (87) . | 3 Tues. . | 4 12 30 | 16 Mar. (76) . | 6 Fri. . | 265-6934 | 4370 |

TABLE

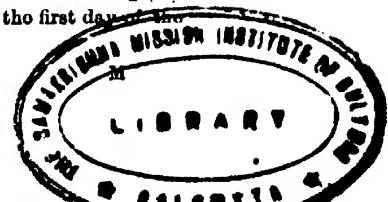
| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4371 | 1192 | 1327 | 676 | 444-45 | 1269-70 | 3 Śukla . . | 8 Bhāva . . | 9 Mārgaśīra . |
| 4372 | 1193 | 1328 | 677 | 445-46 | 1270-71 | 4 Pramōda . . | 9 Yuvan . . | ... |
| 4373 | 1194 | 1329 | 678 | 446-47 | 1271-72 | 5 Prajāpati . . | 10 Dhātṛi . . | ... |
| 4374 | 1195 | 1330 | 679 | 447-48 | *1272-73 | 6 Angiras . . | 11 Iśvara . . | 5 Śrāvapa . |
| 4375 | 1196 | 1331 | 680 | 448-49 | 1273-74 | 7 Śṛimukha . . | 12 Bahudhānya . | ... |
| 4376 | 1197 | 1332 | 681 | 449-50 | 1274-75 | 8 Bhāva . . | 13 Pramāthin . . | ... |
| 4377 | 1198 | 1333 | 682 | 450-51 | 1275-76 | 9 Yuvan . . | 14 Vikrama . . | 2 Vaiśākha . |
| 4378 | 1199 | 1334 | 683 | 451-52 | *1276-77 | 10 Dhātṛi . . | 15 Vṛisha . . | ... |
| 4379 | 1200 | 1335 | 684 | 452-53 | 1277-78 | 11 Iśvara . . | 16 Chitrabhānu . | 10 Pauṣa . |
| 4380 | 1201 | 1336 | 685 | 453-54 | 1278-79 | 12 Bahudhānya . | 17 Subhānu . . | ... |
| 4381 | 1202 | 1337 | 686 | 454-55 | 1279-80 | 13 Pramāthin . . | 18 Tārāpa . . | ... |
| 4382 | 1203 | 1338 | 687 | 455-56 | *1280-81 | 14 Vikrama . . | 19 Pārthiva . . | 7 Āśvina . |
| 4383 | 1204 | 1339 | 688 | 456-57 | 1281-82 | 15 Vṛisha . . | 20 Vyaya . . | ... |
| 4384 | 1205 | 1340 | 689 | 457-58 | 1282-83 | 16 Chitrabhānu . | 21 Sarvajit . . | ... |
| 4385 | 1206 | 1341 | 690 | 458-59 | 1283-84 | 17 Subhānu . . | 22 Sarvadhārin . | 4 Āshāḍha . |
| 4386 | 1207 | 1342 | 691 | 459-60 | *1284-85 | 18 Tārāpa . . | 23 Virōdhin . . | ... |
| 4387 | 1208 | 1343 | 692 | 460-61 | 1285-86 | 19 Pārthiva . . | 24 Vikṛita . . | 12 Phālguna . |
| 4388 | 1209 | 1344 | 693 | 461-62 | 1286-87 | 20 Vyaya . . | 25 Khara . . | ... |
| 4389 | 1210 | 1345 | 694 | 462-63 | 1287-88 | 21 Sarvajit . . | 26 Nandana . . | ... |
| 4390 | 1211 | 1346 | 695 | 463-64 | *1288-89 | 22 Sarvadhārin . | 27 Vijaya . . | 9 Mārgaśīra . |
| 4391 | 1212 | 1347 | 696 | 464-65 | 1289-90 | 23 Virōdhin . . | 28 Jaya . . | ... |
| 4392 | 1213 | 1348 | 697 | 465-66 | 1290-91 | 24 Vikṛita . . | 29 Manmatha . . | ... |
| 4393 | 1214 | 1349 | 698 | 466-67 | 1291-92 | 25 Khara . . | 30 Dūrmukha . . | 5 Śrāvapa . |
| 4394 | 1215 | 1350 | 699 | 467-68 | *1292-93 | 26 Nandana . . | 31 Hēmalamba . | ... |
| 4395 | 1216 | 1351 | 700 | 468-69 | 1293-94 | 27 Vijaya . . | 32 Vilamba . . | ... |

LXXVI—Contd.

1 Arya Siddhanta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here= t , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 27 Mar. (86) . . | 4 Wed. . . | 10 25 0 | 5 Mar. (84) . . | 3 Tues. . . | 141-3767 | 4371 |
| 27 Mar. (86) . . | 5 Thur. . . | 16 37 30 | 24 Mar. (83) . . | 2 Mon. . . | 176-0164 | 4372 |
| 27 Mar. (86) . . | 6 Fri. . . | 22 50 0 | 13 Mar. (72) . . | 6 Fri. . . | 51-6998 | 4373 |
| 27 Mar. (87) . . | 1 Sun. . . | 5 2 30 | 2 Mar. (82) . . | 4 Wed. . . | 266-0150 | 4374 |
| 27 Mar. (86) . . | 2 Mon. . . | 11 15 0 | 21 Mar. (80) . . | 3 Tues. . . | 300-6546 | 4375 |
| 27 Mar. (86) . . | 3 Tues. . . | 17 27 30 | 10 Mar. (89) . . | 0 Sat. . . | 176-3380 | 4376 |
| 27 Mar. (86) . . | 4 Wed. . . | 23 40 0 | 27 Feb. (58) . . | 4 Wed. . . | 52-0213 | 4377 |
| 27 Mar. (87) . . | 6 Fri. . . | 5 52 30 | 17 Mar. (77) . . | 3 Tues. . . | 86-6609 | 4378 |
| 27 Mar. (86) . . | 0 Sat. . . | 12 5 0 | 7 Mar. (86) . . | 1 Sun. . . | 300-9762 | 4379 |
| 27 Mar. (86) . . | 1 Sun. . . | 18 17 30 | 25 Mar. (84) . . | 6 Fri. . . | 9996-9840* | 4380 |
| 28 Mar. (87) . . | 3 Tues. . . | 0 30 0 | 15 Mar. (74) . . | 4 Wed. . . | 211-2992 | 4381 |
| 27 Mar. (87) . . | 4 Wed. . . | 6 42 30 | 3 Mar. (83) . . | 1 Sun. . . | 86-9826 | 4382 |
| 27 Mar. (86) . . | 5 Thur. . . | 12 55 0 | 22 Mar. (81) . . | 0 Sat. . . | 121-6222 | 4383 |
| 27 Mar. (86) . . | 6 Fri. . . | 19 7 30 | 11 Mar. (70) . . | 4 Wed. . . | 9997-3056* | 4384 |
| 28 Mar. (87) . . | 1 Sun. . . | 1 20 0 | 1 Mar. (60) . . | 2 Mon. . . | 211-6209 | 4385 |
| 27 Mar. (87) . . | 2 Mon. . . | 7 32 30 | 19 Mar. (79) . . | 1 Sun. . . | 246-2605 | 4386 |
| 27 Mar. (86) . . | 3 Tues. . . | 13 45 0 | 8 Mar. (67) . . | 5 Thur. . . | 121-9439 | 4387 |
| 27 Mar. (86) . . | 4 Wed. . . | 19 57 30 | 27 Mar. (86) . . | 4 Wed. . . | 156-5834 | 4388 |
| 28 Mar. (87) . . | 6 Fri. . . | 2 16 0 | 16 Mar. (75) . . | 1 Sun. . . | 32-2669 | 4389 |
| 27 Mar. (87) . . | 0 Sat. . . | 8 22 30 | 5 Mar. (65) . . | 6 Fri. . . | 246-5821 | 4390 |
| 27 Mar. (86) . . | 1 Sun. . . | 14 35 0 | 24 Mar. (83) . . | 5 Thur. . . | 281-2218 | 4391 |
| 27 Mar. (86) . . | 2 Mon. . . | 20 47 30 | 13 Mar. (72) . . | 2 Mon. . . | 156-9051 | 4392 |
| 28 Mar. (87) . . | 4 Wed. . . | 3 0 0 | 2 Mar. (61) . . | 6 Fri. . . | 32-5885 | 4393 |
| 27 Mar. (87) . . | 5 Thur. . . | 9 12 30 | 20 Mar. (80) . . | 5 Thur. . . | 67-2281 | 4394 |
| 27 Mar. (86) . . | 6 Fri. . . | 15 25 0 | 10 Mar. (69) . . | 3 Tues. . . | 281-5434 | 4395 |

* As a mean tithi Chaitra Sukla 1 was expunged. The civil day corresponding to it, i.e., the first day of the luni-solar year was as given in cols. 19, 20.



TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Māshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4396 | 1217 | 1352 | 701 | 469-70 | 1294-95 | 28 Jaya . . | 33 Vikārān . | 2 Vaiśākha . |
| 4397 | 1218 | 1353 | 702 | 470-71 | 1295-96 | 29 Manimātha . | 34 Sārvarin . | ... |
| 4398 | 1219 | 1354 | 703 | 471-72 | *1296-97 | 30 Durmukha . | 35 Plava . . | 10 Pausa . |
| 4399 | 1220 | 1355 | 704 | 472-73 | 1297-98 | 31 Hēmalamba . | 36 Subhakarit . | ... |
| 4400 | 1221 | 1356 | 705 | 473-74 | 1298-99 | 32 Vilamba . | 37 Sōbhana . | ... |
| 4401 | 1222 | 1357 | 706 | 474-75 | 1299-00 | 33 Vikārān . | 38 Krōdhin . | 7 Āshvina . |
| 4402 | 1223 | 1358 | 707 | 475-76 | *1300-01 | 34 Sārvarin . | 39 Viśvāvasa . | ... |
| 4403 | 1224 | 1359 | 708 | 476-77 | 1301-02 | 35 Plava . . | 40 Parābhava . | ... |
| 4404 | 1225 | 1360 | 709 | 477-78 | 1302-03 | 36 Subhakarit . | 41 Plavaṅga . | 3 Jyēṣṭha . |
| 4405 | 1226 | 1361 | 710 | 478-79 | 1303-04 | 37 Sōbhana . | 42 Kilaka . . | ... |
| 4406 | 1227 | 1362 | 711 | 479-80 | *1304-05 | 38 Krōdhin . | 43 Saumya . | 12 Phālguna . |
| 4407 | 1228 | 1363 | 712 | 480-81 | 1305-06 | 39 Viśvāvasa . | 44 Sādhārāṇa . | ... |
| 4408 | 1229 | 1364 | 713 | 481-82 | 1306-07 | 40 Parābhava . | 45 Virōdhakarit . | ... |
| 4409 | 1230 | 1365 | 714 | 482-83 | 1307-08 | 41 Plavaṅga . | 46 Paridhāvin . | 8 Kārtika . |
| 4410 | 1231 | 1366 | 715 | 483-84 | *1308-09 | 42 Kilaka . . | 47 Pramādin . | ... |
| 4411 | 1232 | 1367 | 716 | 484-85 | 1309-10 | 43 Saumya . | 48 Ānanda . | ... |
| 4412 | 1233 | 1368 | 717 | 485-86 | 1310-11 | 44 Sādhārāṇa . | 49 Rākshasa . | 5 Śrāvaṇa . |
| 4413 | 1234 | 1369 | 718 | 486-87 | 1311-12 | 45 Virōdhakarit . | 50 Anala . . | ... |
| 4414 | 1235 | 1370 | 719 | 487-88 | *1312-13 | 46 Paridhāvin . | 51 Piṅgala . | ... |
| 4415 | 1236 | 1371 | 720 | 488-89 | 1313-14 | 47 Pramādin . | 52 Kālayukta . | 1 Chaitra . |
| 4416 | 1237 | 1372 | 721 | 489-90 | 1314-15 | 48 Ānanda . | 53 Siddhārthān . | ... |
| 4417 | 1238 | 1373 | 722 | 490-91 | 1315-16 | 49 Rākshasa . | 54 Raudra . | 10 Pausa . |
| 4418 | 1239 | 1374 | 723 | 491-92 | *1316-17 | 50 Anala . . | 55 Durmāṣi . | ... |
| 4419 | 1240 | 1375 | 724 | 492-93 | 1317-18 | 51 Piṅgala . | 56 Dundabhi . | ... |
| 4420 | 1241 | 1376 | 725 | 493-94 | 1318-19 | 52 Kālayukta . | 57 Rudhrōdgārin | 7 Āshvina . |

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---------------------------------------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 27 Mar. (86) . | 0 Sat. . | 21 37 40 | 27 Feb. (58) . | 0 Sat. . | 157-2268 | 4396 |
| 28 Mar. (87) . | 2 Mon. . | 3 50 0 | 18 Mar. (77) . | 6 Fri. . | 191-8664 | 4397 |
| 27 Mar. (87) . | 3 Tues. . | 10 2 30 | 6 Mar. (66) . | 3 Tues. . | 67-5498 | 4398 |
| 27 Mar. (86) . | 4 Wed. . | 16 15 0 | 25 Mar. (84) . | 2 Mon. . | 102-1894 | 4399 |
| 27 Mar. (86) . | 5 Thur. . | 22 27 30 | 15 Mar. (74) . | 0 Sat. . | 316-5047 | 4400 |
| 28 Mar. (87) . | 0 Sat. . | 4 40 0 | 4 Mar. (63) . | 4 Wed. . | 192-1881 | 4401 |
| 27 Mar. (87) . | 1 Sun. . | 10 52 30 | 22 Mar. (82) . | 3 Tues. . | 224-8277 | 4402 |
| 27 Mar. (86) . | 2 Mon. . | 17 5 0 | 11 Mar. (70) . | 0 Sat. . | 102-5111 | 4403 |
| 27 Mar. (86) . | 3 Tues. . | 23 17 30 | 1 Mar. (60) . | 5 Thur. . | 316-8264 | 4404 |
| 28 Mar. (87) . | 5 Thur. . | 5 30 0 | 19 Mar. (78) . | 3 Tues. . | 12-8341 | 4405 |
| 27 Mar. (87) . | 6 Fri. . | 11 42 30 | 8 Mar. (68) . | 1 Sun. . | 227-1494 | 4406 |
| 27 Mar. (86) . | 0 Sat. . | 17 55 0 | 27 Mar. (86) . | 0 Sat. . | 261-7889 | 4407 |
| 28 Mar. (87) . | 2 Mon. . | 0 7 30 | 16 Mar. (75) . | 4 Wed. . | 137-4728 | 4408 |
| 28 Mar. (87) . | 3 Tues. . | 6 20 0 | 5 Mar. (64) . | 1 Sun. . | 13-1558 | 4409 |
| 27 Mar. (87) . | 4 Wed. . | 12 32 30 | 23 Mar. (82) . | 0 Sat. . | 47-7954 | 4410 |
| 27 Mar. (86) . | 5 Thur. . | 18 45 0 | 13 Mar. (72) . | 5 Thur. . | 262-1106 | 4411 |
| 28 Mar. (87) . | 0 Sat. . | 0 57 30 | 2 Mar. (61) . | 2 Mon. . | 137-7940 | 4412 |
| 28 Mar. (87) . | 1 Sun. . | 7 10 0 | 21 Mar. (80) . | 1 Sun. . | 172-4337 | 4413 |
| 27 Mar. (87) . | 2 Mon. . | 13 22 30 | 9 Mar. (69) . | 5 Thur. . | 48-1170 | 4414 |
| 27 Mar. (86) . | 3 Tues. . | 19 35 0 | 27 Feb. (58) . | 3 Tues. . | 262-4322 | 4415 |
| 28 Mar. (87) . | 5 Thur. . | 1 47 30 | 18 Mar. (77) . | 2 Mon. . | 297-0719 | 4416 |
| 28 Mar. (87) . | 6 Fri. . | 8 0 0 | 7 Mar. (66) . | 6 Fri. . | 172-7553 | 4417 |
| 27 Mar. (87) . | 0 Sat. . | 14 12 30 | 25 Mar. (85) . | 5 Thur. . | 207-3949 | 4418 |
| 27 Mar. (86) . | 1 Sun. . | 20 25 0 | 14 Mar. (73) . | 2 Mon. . | 83-0562 | 4419 |
| 28 Mar. (87) . | 3 Tues. . | 2 37 30 | 4 Mar. (62) . | 0 Sat. . | 297-3935 | 4420 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4421 | 1242 | 1377 | 726 | 494-95 | 1319-20 | 53 Siddhārthin . | 58 Raktāksha . | ... |
| 4422 | 1243 | 1378 | 727 | 495-96 | *1320-21 | 54 Raudra . | 59 Krōdhana . | ... |
| 4423 | 1244 | 1379 | 728 | 496-97 | 1321-22 | 55 Durmati . | 60 Kshaya . | 3 Jyēshṭha . |
| 4424 | 1245 | 1380 | 729 | 497-98 | 1322-23 | 56 Dundubhi . | 1 Prabhava . | ... |
| 4425 | 1246 | 1381 | 730 | 498-99 | 1323-24 | 57 Rudhirōdgārin | 2 Vibhava . | 12 Phālguna . |
| 4426 | 1247 | 1382 | 731 | 499-00 | *1324-25 | 58 Raktāksha . | 3 Śukla . | ... |
| 4427 | 1248 | 1383 | 732 | 500-01 | 1325-26 | 59 Krōdhana . | 4 Pramōda . | ... |
| 4428 | 1249 | 1384 | 733 | 501-02 | 1326-27 | 60 Kshaya . | 5 Prajāpati . | 8 Kārttika . |
| 4429 | 1250 | 1385 | 734 | 502-03 | 1327-28 | 1 Prabhava . | 6 Aṅgiras . | ... |
| 4430 | 1251 | 1386 | 735 | 503-04 | *1328-29 | 2 Vibhava . | 7 Śrīmukha . | ... |
| 4431 | 1252 | 1387 | 736 | 504-05 | 1329-30 | 3 Śukla . | 8 Bhāva . | 5 Śrāvaṇa . |
| 4432 | 1253 | 1388 | 737 | 505-06 | 1330-31 | 4 Pramōda . | 9 Yuvan† . | ... |
| 4433 | 1254 | 1389 | 738 | 506-07 | 1331-32 | 5 Prajāpati . | 11 Īvara . | ... |
| 4434 | 1255 | 1390 | 739 | 507-08 | *1332-33 | 6 Aṅgiras . | 12 Bahudhānya . | 1 Chaitra . |
| 4435 | 1256 | 1391 | 740 | 508-09 | 1333-34 | 7 Śrīmukha . | 13 Pramāthin . | ... |
| 4436 | 1257 | 1392 | 741 | 509-10 | 1334-35 | 8 Bhāva . | 14 Vikrama . | 10 Pausha . |
| 4437 | 1258 | 1393 | 742 | 510-11 | 1335-36 | 9 Yuvan . | 15 Vṛisha . | ... |
| 4438 | 1259 | 1394 | 743 | 511-12 | *1336-37 | 10 Dhātṛi . | 16 Chitrabhānu . | ... |
| 4439 | 1260 | 1395 | 744 | 512-13 | 1337-38 | 11 Īvara . | 17 Subhānu . | 6 Bhādrapada . |
| 4440 | 1261 | 1396 | 745 | 513-14 | 1338-39 | 12 Bahudhānya . | 18 Tāraṇa . | ... |
| 4441 | 1262 | 1397 | 746 | 514-15 | 1339-40 | 13 Pramāthin . | 19 Pārthiva . | ... |
| 4442 | 1263 | 1398 | 747 | 515-16 | *1340-41 | 14 Vikrama . | 20 Vyaya . | 3 Jyēshṭha . |
| 4443 | 1264 | 1399 | 748 | 516-17 | 1341-42 | 15 Vṛisha . | 21 Sarvajit . | ... |
| 4444 | 1265 | 1400 | 749 | 517-18 | 1342-43 | 16 Chitrabhānu . | 22 Sarvadhārin . | 11 Māgha . |
| 4445 | 1266 | 1401 | 750 | 518-19 | 1343-44 | 17 Subhānu . | 23 Virōdhin . | ... |

† 10 Dhātṛi was suppressed in the north by the mean system, but 11 Īvara by the true system. The year A.D. 1331-32 was by the latter system called "10 Dhātṛi" in the north.

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | | Kali year. |
|---------------------|-----------|-------------------------------|---|-----------|--|------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here= <i>t</i> , the index of the tithi). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 28 Mar. (87) . . | 4 Wed. . | 8 50 0 | 23 Mar. (82) . | 6 Fri. . | 332-0331 | 4421 | |
| 27 Mar. (87) . . | 5 Thur. . | 15 2 30 | 11 Mar. (71) . | 3 Tues. . | 207-7165 | 4422 | |
| 27 Mar. (86) . . | 6 Fri. . | 21 15 0 | 28 Feb. (59) . | 0 Sat. . | 83-3999 | 4423 | |
| 28 Mar. (87) . . | 1 Sun. . | 3 27 30 | 19 Mar. (78) . | 6 Fri. . | 118-0395 | 4424 | |
| 28 Mar. (87) . . | 2 Mon. . | 9 40 0 | 9 Mar. (68) . | 4 Wed. . | 332-3547 | 4425 | |
| 27 Mar. (87) . . | 3 Tues. . | 15 52 30 | 26 Mar. (86) . | 2 Mon. . | 28-3624 | 4426 | |
| 27 Mar. (86) . . | 4 Wed. . | 22 5 0 | 16 Mar. (75) . | 0 Sat. . | 242-6778 | 4427 | |
| 28 Mar. (87) . . | 6 Fri. . | 4 17 30 | 5 Mar. (64) . | 4 Wed. . | 118-3612 | 4428 | |
| 28 Mar. (87) . . | 0 Sat. . | 10 30 0 | 24 Mar. (83) . | 3 Tues. . | 153-0008 | 4429 | |
| 27 Mar. (87) . . | 1 Sun. . | 16 42 30 | 12 Mar. (72) . | 0 Sat. . | 28-7841 | 4430 | |
| 27 Mar. (86) . . | 2 Mon. . | 22 55 0 | 2 Mar. (61) . | 5 Thur. . | 242-9995 | 4431 | |
| 28 Mar. (87) . . | 4 Wed. . | 5 7 30 | 21 Mar. (80) . | 4 Wed. . | 277-6391 | 4432 | |
| 28 Mar. (87) . . | 5 Thur. . | 11 20 0 | 10 Mar. (69) . | 1 Sun. . | 153-3224 | 4433 | |
| 27 Mar. (87) . . | 6 Fri. . | 17 32 30 | 27 Feb. (58) . | 5 Thur. . | 29-0058 | 4434 | |
| 27 Mar. (86) . . | 0 Sat. . | 23 45 0 | 17 Mar. (76) . | 4 Wed. . | 63-6455 | 4435 | |
| 28 Mar. (87) . . | 2 Mon. . | 5 57 30 | 7 Mar. (66) . | 2 Mon. . | 277-9607 | 4436 | |
| 28 Mar. (87) . . | 3 Tues. . | 12 10 0 | 25 Mar. (85) . | 1 Sun. . | 312-6003 | 4437 | |
| 27 Mar. (87) . . | 4 Wed. . | 18 22 30 | 14 Mar. (74) . | 5 Thur. . | 188-2837 | 4438 | |
| 28 Mar. (87) . . | 6 Fri. . | 0 35 0 | 3 Mar. (62) . | 2 Mon. . | 63-9689 | 4439 | |
| 28 Mar. (87) . . | 0 Sat. . | 6 47 30 | 22 Mar. (81) . | 1 Sun. . | 98-6067 | 4440 | |
| 28 Mar. (87) . . | 1 Sun. . | 13 0 0 | 12 Mar. (71) . | 6 Fri. . | 312-9231 | 4441 | |
| 27 Mar. (87) . . | 2 Mon. . | 19 12 30 | 29 Feb. (60) . | 3 Tues. . | 188-6054 | 4442 | |
| 28 Mar. (87) . . | 4 Wed. . | 1 25 0 | 19 Mar. (78) . | 2 Mon. . | 223-2350 | 4443 | |
| 28 Mar. (87) . . | 5 Thur. . | 7 37 30 | 8 Mar. (67) . | 6 Fri. . | 98-9284 | 4444 | |
| 28 Mar. (87) . . | 6 Fri. . | 13 50 0 | 27 Mar. (86) . | 5 Thur. . | 133-5679 | 4445 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4446 | 1267 | 1402 | 751 | 519-20 | *1344-45 | 18 Tārana . . | 24 Vikṛita . . | ... |
| 4447 | 1268 | 1403 | 752 | 520-21 | 1345-46 | 19 Pārthiva . . | 25 Khara . . | 8 Kārttika . |
| 4448 | 1269 | 1404 | 753 | 521-22 | 1346-47 | 20 Vyaya . . | 26 Nandana . . | ... |
| 4449 | 1270 | 1405 | 754 | 522-23 | 1347-48 | 21 Sarvajit . . | 27 Vijaya . . | ... |
| 4450 | 1271 | 1406 | 755 | 523-24 | *1348-49 | 22 Sarvadhārin . | 28 Jaya . . | 4 Āshādha . |
| 4451 | 1272 | 1407 | 756 | 524-25 | 1349-50 | 23 Virōdhin . . | 29 Manmatha . . | ... |
| 4452 | 1273 | 1408 | 757 | 525-26 | 1350-51 | 24 Vikṛita . . | 30 Durmukha . . | ... |
| 4453 | 1274 | 1409 | 758 | 526-27 | 1351-52 | 25 Khara . . | 31 Hēmalamba . . | 1 Chaitra . |
| 4454 | 1275 | 1410 | 759 | 527-28 | *1352-53 | 26 Nandana . . | 32 Vilamba . . | ... |
| 4455 | 1276 | 1411 | 760 | 528-29 | 1353-54 | 27 Vijaya . . | 33 Vikārin . . | 9 Mārgaśīra . |
| 4456 | 1277 | 1412 | 761 | 529-30 | 1354-55 | 28 Jaya . . | 34 Śārvarin . . | ... |
| 4457 | 1278 | 1413 | 762 | 530-31 | 1355-56 | 29 Manmatha . . | 35 Plava . . | ... |
| 4458 | 1279 | 1414 | 763 | 531-32 | *1356-57 | 30 Durmukha . . | 36 Subhākṛit . . | 6 Bhādrapada |
| 4459 | 1280 | 1415 | 764 | 532-33 | 1357-58 | 31 Hēmalamba . . | 37 Śōbhana . . | ... |
| 4460 | 1281 | 1416 | 765 | 533-34 | 1358-59 | 32 Vilamba . . | 38 Krōdhin . . | ... |
| 4461 | 1282 | 1417 | 766 | 534-35 | 1359-60 | 33 Vikārin . . | 39 Viśvāvasu . . | 3 Jyēṣṭha . |
| 4462 | 1283 | 1418 | 767 | 535-36 | *1360-61 | 34 Śārvarin . . | 40 Parābhava . . | ... |
| 4463 | 1284 | 1419 | 768 | 536-37 | 1361-62 | 35 Plava . . | 41 Plavaṅga . . | 11 Māgha . |
| 4464 | 1285 | 1420 | 769 | 537-38 | 1362-63 | 36 Subhākṛit . . | 42 Kilaka . . | ... |
| 4465 | 1286 | 1421 | 770 | 538-39 | 1363-64 | 37 Śōbhana . . | 43 Saumya . . | ... |
| 4466 | 1287 | 1422 | 771 | 539-40 | *1364-65 | 38 Krōdhin . . | 44 Sādhāraṇa . . | 8 Kārttika . |
| 4467 | 1288 | 1423 | 772 | 540-41 | 1365-66 | 39 Viśvāvasu . . | 45 Virōdhakṛit . . | ... |
| 4468 | 1289 | 1424 | 773 | 541-42 | 1366-67 | 40 Parābhava . . | 46 Paridhāvin . . | ... |
| 4469 | 1290 | 1425 | 774 | 542-43 | 1367-68 | 41 Plavaṅga . . | 47 Pramādin . . | 4 Āshādha . |
| 4470 | 1291 | 1426 | 775 | 543-44 | *1368-69 | 42 Kilaka . . | 48 Ānanda . . | ... |

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | | Kali year. |
|---------------------|------------|-------------------------------|--|-----------|---------------------------------------|------|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS) | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 27 Mar. (87) . . | 0 Sat. . | 20 2 30 | 15 Mar. (75) . | 2 Mon. . | 9-2513 | 4446 | |
| 28 Mar. (87) . . | 2 Mon. . | 2 15 0 | 5 Mar. (64) . | 0 Sat. . | 223-5666 | 4447 | |
| 28 Mar. (87) . . | 3 Tues. . | 8 27 30 | 24 Mar. (83) . | 6 Fri. . | 258-2062 | 4448 | |
| 28 Mar. (87) . . | 4 Wed. . | 14 40 0 | 13 Mar. (72) . | 3 Tues. . | 133-9897 | 4449 | |
| 27 Mar. (87) . . | 5 Thur. . | 20 52 30 | 1 Mar. (61) . | 0 Sat. . | 9-5730 | 4450 | |
| 28 Mar. (87) . . | 0 Sat. . | 3 5 0 | 20 Mar. (79) . | 6 Fri. . | 44-2126 | 4451 | |
| 28 Mar. (87) . . | 1 Sun. . | 9 17 30 | 10 Mar. (69) . | 4 Wed. . | 258-5279 | 4452 | |
| 28 Mar. (87) . . | 2 Mon. . | 15 30 0 | 27 Feb. (58) . | 1 Sun. . | 134-2112 | 4453 | |
| 27 Mar. (87) . . | 3 Tues. . | 21 42 30 | 17 Mar. (77) . | 0 Sat. . | 168-8509 | 4454 | |
| 28 Mar. (87) . . | 5 Thur. . | 3 55 0 | 6 Mar. (65) . | 4 Wed. . | 44-5342 | 4455 | |
| 28 Mar. (87) . . | 6 Fri. . | 10 7 30 | 25 Mar. (84) . | 3 Tues. . | 79-1738 | 4456 | |
| 28 Mar. (87) . . | 0 Sat. . | 16 20 0 | 15 Mar. (74) . | 1 Sun. . | 293-4891 | 4457 | |
| 27 Mar. (87) . . | 1 Sun. . | 22 32 30 | 3 Mar. (63) . | 5 Thur. . | 169-1725 | 4458 | |
| 28 Mar. (87) . . | 3 Tues. . | 4 45 0 | 22 Mar. (81) . | 4 Wed. . | 203-8121 | 4459 | |
| 28 Mar. (87) . . | 4 Wed. . | 10 57 30 | 11 Mar. (70) . | 1 Sun. . | 79-4955 | 4460 | |
| 28 Mar. (87) . . | 5 Thur. . | 17 10 0 | 1 Mar. (60) . | 6 Fri. . | 293-8108 | 4461 | |
| 27 Mar. (87) . . | 6 Fri. . | 23 22 30 | 19 Mar. (79) . | 5 Thur. . | 328-4504 | 4462 | |
| 28 Mar. (87) . . | 1 Sun. . | 5 35 0 | 8 Mar. (67) . | 2 Mon. . | 204-1338 | 4463 | |
| 28 Mar. (87) . . | 2 Mon. . | 11 47 30 | 27 Mar. (86) . | 1 Sun. . | 238-7731 | 4464 | |
| 28 Mar. (87) . . | 3 Tues. . | 18 0 0 | 16 Mar. (75) . | 5 Thur. . | 114-4568 | 4465 | |
| 28 Mar. (88) . . | 5 Thurs. . | 0 12 30 | 5 Mar. (65) . | 3 Tues. . | 328-7721 | 4466 | |
| 28 Mar. (87) . . | 6 Fri. . | 6 25 0 | 23 Mar. (82) . | 1 Sun. . | 24-7798 | 4467 | |
| 28 Mar. (87) . . | 0 Sat. . | 12 37 30 | 13 Mar. (72) . | 6 Fri. . | 239-0951 | 4468 | |
| 28 Mar. (87) . . | 1 Sun. . | 18 50 0 | 2 Mar. (61) . | 3 Tues. . | 114-7785 | 4469 | |
| 28 Mar. (88) . . | 3 Tues. . | 1 2 30 | 20 Mar. (80) . | 2 Mon. . | 149-4181 | 4470 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4471 | 1292 | 1427 | 776 | 544-45 | 1369-70 | 43 Saumya . | 49 Rākshasa . | ... |
| 4472 | 1293 | 1428 | 777 | 545-46 | 1370-71 | 44 Sādhāraṇa . | 50 Anala . | 1 Chaitra . |
| 4473 | 1294 | 1429 | 778 | 546-47 | 1371-72 | 45 Virōdhakṛit . | 51 Piṅgala . | ... |
| 4474 | 1295 | 1430 | 779 | 547-48 | *1372-73 | 46 Paridhāvin . | 52 Kālayukta . | 9 Mārgasīra . |
| 4475 | 1296 | 1431 | 780 | 548-49 | 1373-74 | 47 Pramādin . | 53 Siddhārthin . | ... |
| 4476 | 1297 | 1432 | 781 | 549-50 | 1374-75 | 48 Ānanda . | 54 Raudra . | ... |
| 4477 | 1298 | 1433 | 782 | 550-51 | 1375-76 | 49 Rākshasa . | 55 Durmati . | 6 Bhādrapada |
| 4478 | 1299 | 1434 | 783 | 551-52 | *1376-77 | 50 Anala . | 56 Dundubhi . | ... |
| 4479 | 1300 | 1435 | 784 | 552-53 | 1377-78 | 51 Piṅgala . | 57 Rudhirōdgārin | ... |
| 4480 | 1301 | 1436 | 785 | 553-54 | 1378-79 | 52 Kālayukta . | 58 Raktāksha . | 2 Vaiśakha . |
| 4481 | 1302 | 1437 | 786 | 554-55 | 1379-80 | 53 Siddhārthin . | 59 Krōdhana . | ... |
| 4482 | 1303 | 1438 | 787 | 555-56 | *1380-81 | 54 Raudra . | 60 Kshaya . | 11 Māgha . |
| 4483 | 1304 | 1439 | 788 | 556-57 | 1381-82 | 55 Durmati . | 1 Prabhava . | ... |
| 4484 | 1305 | 1440 | 789 | 557-58 | 1382-83 | 56 Dundubhi . | 2 Vibhava . | ... |
| 4485 | 1306 | 1441 | 790 | 558-59 | 1383-84 | 57 Rudhirōdgārin | 3 Śukla . | 7 Āśvina . |
| 4486 | 1307 | 1442 | 791 | 559-60 | *1384-85 | 58 Raktāksha . | 4 Pramōda . | ... |
| 4487 | 1308 | 1443 | 792 | 560-61 | 1385-86 | 59 Krōdhana . | 5 Prajāpati . | ... |
| 4488 | 1309 | 1444 | 793 | 561-62 | 1386-87 | 60 Kshaya . | 6 Aṅgiras . | 4 Āshādha . |
| 4489 | 1310 | 1445 | 794 | 562-63 | 1387-88 | 1 Prabhava . | 7 Śrīmukha . | ... |
| 4490 | 1311 | 1446 | 795 | 563-64 | *1388-89 | 2 Vibhava . | 8 Bhāva . | 12 Phālguna . |
| 4491 | 1312 | 1447 | 796 | 564-65 | 1389-90 | 3 Śukla . | 9 Yuvan . | ... |
| 4492 | 1313 | 1448 | 797 | 565-66 | 1390-91 | 4 Pramōda . | 10 Dhātṛi . | ... |
| 4493 | 1314 | 1449 | 798 | 566-67 | 1391-92 | 5 Prajāpati . | 11 Īsvara . | 9 Mārgasīra . |
| 4494 | 1315 | 1450 | 799 | 567-68 | *1392-93 | 6 Aṅgiras . | 12 Bahudhānya . | ... |
| 4495 | 1316 | 1451 | 800 | 568-69 | 1393-94 | 7 Śrīmukha . | 13 Pramāthin . | ... |

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| Royal Society of Antiquaries, Edinburgh. | North China Branch of the Royal Asiatic Society, Shanghai. |
| Royal Society of Antiquaries, Ireland, 17, Highfield Road, Rathgar, Dublin. | Smithsonian Institution, Washington, D. C., U. S. A. |
| Institut de France, Paris. | Harvard University Library, Cambridge, Boston, Massachusetts, U. S. A. |
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| Secretariat Library, Calcutta. | Varendra Research Society, Rajshahi. |
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| Oriental College Library, Lahore. | Punjab Public Library, Lahore. |
| Secretariat Library, Nagpur. | Museum Library, Delhi. |
| Museum Library, ditto. | Public Library, Delhi. |
| Secretariat Library, Rangoon. | Peshawar Museum Library, Peshawar. |
| Oriental and Mixed Library, Bangalore. | Secretariat Library, Peshawar. |
| College Library, Dacca. | Public Library, Mandalay. |
| Itihasa Samsodhak Mandal, Poona. | Bernard Free Library, Rangoon. |
| Museum Library, Lucknow. | Rangoon College Library, Rangoon. |
| The Mythic Society, Bangalore. | Government Library, Shillong. |
| Department of Education Library, Delhi. | Secretariat Library, Shillong. |
| Government College Library, Kumbakonam. | Government College Library, Jubbulpore. |
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| The Connemara Public Library, Madras. | Rajkumar College Library, Indore. |
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| Government College Library, Rajahmundry. | Library of the Resident at Baroda. |
| Maharajah's College Library, Trivandrum. | Baroda Museum Library, Baroda. |
| Sanskrit College Library, Tiruvadi (Tanjore). | Gwalior Darbar Library, Gwalior. |
| Maharajah's College Library, Vizayanagaram. | Bhuri Singh Museum Library, Chamba. |
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| Prince of Wales Museum Library, Bombay. | |

LXXVI—Contd.

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SŪKLA 1 ENDS). | | | Kali year. |
| Day and month, A.D. | Week-day. | Time of mean Mōsha-samkrānti. | Day and month, A.D. | Week-day. | a (here= <i>t</i> , the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 28 Mar. (87) . . | 4 Wed. . . | 7 15 0 | 9 Mar. (68) . . | 6 Fri. . . | 25-1015 | 4471 |
| 28 Mar. (87) . . | 5 Thur. . . | 13 27 30 | 27 Feb. (58) . . | 4 Wed. . . | 239-4167 | 4472 |
| 28 Mar. (87) . . | 6 Fri. . . | 19 40 0 | 18 Mar. (77) . . | 3 Tues. . . | 274-0564 | 4473 |
| 28 Mar. (88) . . | 1 Sun. . . | 1 52 30 | 6 Mar. (66) . . | 0 Sat. . . | 149-7397 | 4474 |
| 28 Mar. (87) . . | 2 Mon. . . | 8 5 0 | 25 Mar. (84) . . | 6 Fri. . . | 184-3794 | 4475 |
| 28 Mar. (87) . . | 3 Tues. . . | 14 17 30 | 14 Mar. (73) . . | 3 Tues. . . | 60-0627 | 4476 |
| 28 Mar. (87) . . | 4 Wed. . . | 20 30 0 | 4 Mar. (63) . . | 1 Sun. . . | 274-3779 | 4477 |
| 28 Mar. (88) . . | 6 Fri. . . | 2 42 30 | 22 Mar. (82) . . | 0 Sat. . . | 309-0176 | 4478 |
| 28 Mar. (87) . . | 0 Sat. . . | 8 55 0 | 11 Mar. (70) . . | 4 Wed. . . | 184-7009 | 4479 |
| 28 Mar. (87) . . | 1 Sun. . . | 15 7 30 | 28 Feb. (59) . . | 1 Sun. . . | 60-3844 | 4480 |
| 28 Mar. (87) . . | 2 Mon. . . | 21 20 0 | 19 Mar. (78) . . | 0 Sat. . . | 95-0230 | 4481 |
| 28 Mar. (88) . . | 4 Wed. . . | 3 32 30 | 8 Mar. (68) . . | 5 Thur. . . | 309-3392 | 4482 |
| 28 Mar. (87) . . | 5 Thur. . . | 9 45 0 | 26 Mar. (85) . . | 3 Tues. . . | 5-3469 | 4483 |
| 28 Mar. (87) . . | 6 Fri. . . | 15 57 30 | 16 Mar. (75) . . | 1 Sun. . . | 219-6622 | 4484 |
| 28 Mar. (87) . . | 0 Sat. . . | 22 10 0 | 5 Mar. (64) . . | 5 Thur. . . | 95-3456 | 4485 |
| 28 Mar. (88) . . | 2 Mon. . . | 4 22 30 | 23 Mar. (83) . . | 4 Wed. . . | 129-9852 | 4486 |
| 28 Mar. (87) . . | 3 Tues. . . | 10 35 0 | 12 Mar. (71) . . | 1 Sun. . . | 5-6686 | 4487 |
| 28 Mar. (87) . . | 4 Wed. . . | 16 47 30 | 2 Mar. (61) . . | 6 Fri. . . | 219-9839 | 4488 |
| 28 Mar. (87) . . | 5 Thur. . . | 23 0 0 | 21 Mar. (80) . . | 5 Thur. . . | 254-6235 | 4489 |
| 28 Mar. (88) . . | 0 Sat. . . | 5 12 30 | 9 Mar. (69) . . | 2 Mon. . . | 130-3069 | 4490 |
| 28 Mar. (87) . . | 1 Sun. . . | 11 25 0 | 28 Mar. (87) . . | 1 Sun. . . | 164-9464 | 4491 |
| 28 Mar. (87) . . | 2 Mon. . . | 17 37 30 | 17 Mar. (76) . . | 5 Thur. . . | 40-6298 | 4492 |
| 28 Mar. (87) . . | 3 Tues. . . | 23 50 0 | 7 Mar. (66) . . | 3 Tues. . . | 254-9451 | 4493 |
| 28 Mar. (88) . . | 5 Thur. . . | 6 2 30 | 25 Mar. (85) . . | 2 Mon. . . | 289-5848 | 4494 |
| 28 Mar. (87) . . | 6 Fri. . . | 12 15 0 | 14 Mar. (73) . . | 6 Fri. . . | 165-2681 | 4495 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
Intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A.D. | JOVIAN SĀMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4496 | 1317 | 1452 | 801 | 569-70 | 1394-95 | 8 Bhāva . . | 14 Vikrama . . | 6 Bhādrapada |
| 4497 | 1318 | 1453 | 802 | 570-71 | 1395-96 | 9 Yuvan . . | 15 Vṛiṣha . . | ... |
| 4498 | 1319 | 1454 | 803 | 571-72 | *1396-97 | 10 Dhātṛi . . | 16 Chitrabhanu . . | ... |
| 4499 | 1320 | 1455 | 804 | 572-73 | 1397-98 | 11 Īsvara . . | 17 Subhānu . . | 2 Vaiśākha . . |
| 4500 | 1321 | 1456 | 805 | 573-74 | 1398-99 | 12 Bahudhanya . . | 18 Tārana . . | ... |
| 4501 | 1322 | 1457 | 806 | 574-75 | 1399-00 | 13 Pramāthin . . | 19 Pārthiva . . | 11 Māgha . . |
| 4502 | 1323 | 1458 | 807 | 575-76 | *1400-01 | 14 Vikrama . . | 20 Vyaya . . | ... |

LXXVI—*Concl'd.*

1 Ārya Siddhānta, mean system.

| COMMENCEMENT OF THE | | | | | | |
|------------------------|-----------|--------------------------------------|---|-----------|---|------------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali year. |
| Day and month,
A.D. | Week-day. | Time of
mean Mēsha-
sankranti. | Day and month,
A.D. | Week-day. | <i>a</i> (here= <i>t</i> ,
the index
of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 28 Mar. (87) . . | 0 Sat. . | 18 27 30 | 3 Mar. (62) . . | 3 Tues. . | 40-9515 | 4496 |
| 29 Mar. (88) . . | 2 Mon. . | 0 40 0 | 22 Mar. (81) . . | 2 Mon. . | 75-5912 | 4497 |
| 28 Mar. (88) . . | 3 Tues. . | 6 52 30 | 11 Mar. (71) . . | 0 Sat. . | 289-9064 | 4498 |
| 28 Mar. (87) . . | 4 Wed. . | 13 5 0 | 28 Feb. (59) . . | 4 Wed. . | 105-5898 | 4499 |
| 28 Mar. (87) . . | 5 Thur. . | 19 17 30 | 19 Mar. (78) . . | 3 Tues. . | 200-2294 | 4500 |
| 29 Mar. (88) . . | 0 Sat. . | 1 30 0 | 8 Mar. (67) . . | 0 Sat. . | 75-9127 | 4501 |
| 28 Mar. (88) . . | 1 Sun. . | 7 42 30 | 26 Mar. (86) . . | 6 Fri. . | 110-5523 | 4502 |

TABLE LXXVII.

DURATION AND COLLECTIVE DURATION OF MEAN SOLAR MONTHS ACCORDING TO THE FIRST ĀRYA SIDDHĀNTA, WITH INCREASE OF a AT EACH SAMKRĀNTI.

| Mean luni-solar month, ending after the second of the two solar samkrāntis connected with it. | At the mean solar samkrāntis. | Collective duration in time and collective increase of a from mean Māsha-samkrānti to the several samkrāntis. | | | |
|---|------------------------------------|---|-----------|-----------|------------|
| | | Day. | Week-day. | H. M. S. | a |
| 1 | 2 | 3 | | | 4 |
| 1. Chaitra . . . | { Mīna-samk. (of previous year). | | | | |
| 2. Vaiśākha . . . | { Mēsha-samk. . . | 0 | 0 | 0 0 0 | 0 |
| 3. Jyēshtha . . . | { Vṛishabha-samk. . . | 30 | (2) | 10 31 2½ | 307·3520 |
| 4. Āshāḍha . . . | { Mithuna-samk. . . | 60 | (4) | 21 2 5 | 614·7052 |
| 5. Śrāvaṇa . . . | { Karka-samk. . . | 91 | (0) | 7 33 7½ | 922·0579 |
| 6. Bhādrapada . . . | { Simha-samk. . . | 121 | (2) | 18 4 10 | 1220·4105 |
| 7. Āsvina . . . | { Kanyā-samk. . . | 152 | (5) | 4 35 12½ | 1536·7631 |
| 8. Kārttika . . . | { Tulā-samk. . . | 182 | (0) | 15 6 15 | 1844·1157 |
| 9. Mārgaśīra . . . | { Vṛiśchika-samk. . . | 213 | (3) | 1 37 17½ | 2151·4684 |
| 10. Pausha . . . | { Dhanus-samk. . . | 243 | (5) | 12 8 20 | 2458·8210 |
| 11. Māgha . . . | { Makara-samk. . . | 273 | (0) | 22 39 22½ | 2766·1736 |
| 12. Phālguna . . . | { Kumbha-samk. . . | 304 | (3) | 9 10 25 | 3073·5262 |
| | { Mīna-samk. . . | 334 | (5) | 19 41 27½ | 3380·8789 |
| 1. Chaitra (of following year). | { Mēsha-samk. (of following year). | 365 | (1) | 6 12 30 | 3688·2315* |

The duration of each mean solar month is 30d. 10h. 31m. 2½s.; and during this period in addition to one whole revolution, the mean moon increases her distance from mean sun, in measurement by 10,000ths of circle by, (or in other words the monthly increase of $a =$) 307·352623 726.

* More fully 3688·231484714.

TABLE LXXVIII.

VALUE OF a ($=t$) AT BEGINNING OF CENTURIES OF THE KALIYUGA, ACCORDING TO THE FIRST ARYA SIDDHANTA MEAN SYSTEM.

[The value of a to be added for beginning of odd years of centuries is given in Table LXXIII above. W.-D.=Week-day.]

| Century
K. Y. | W.-D. | a ($=t$). |
|------------------|-------|---------------|
| 36 | 1 | 7715-3525 |
| 37 | 1 | 6583-1816 |
| 38 | 0 | 5112-3787 |
| 39 | 0 | 3980-2078 |
| 40 | 0 | 2848-0369 |
| 41 | 0 | 1715-8659 |
| 42 | 0 | 583-6950 |
| 43 | 0 | 9451-5240 |
| 44 | 0 | 8319-3531 |
| 45 | 0 | 7187-1822 |
| 46 | 6 | 5716-3793 |
| 47 | 6 | 4584-2084 |
| 48 | 6 | 3452-0375 |

The duration of each mean solar month is 30d. 10h. 31m. $2\frac{1}{2}$ s., and during this period in addition to one whole revolution, the mean moon increases her distance from mean sun, in measurement by 10,000ths of circle by, (or in other words the monthly increase of a =) 307-352623726.

N.B.—These values of a agree generally with Professor Jacobi's values above (Vol. XI, p. 164). The apparent differences are due to two causes: (i) The present estimate of the sum of the greatest equations of moon and sun is about 0-4 greater than that of Professor Jacobi. (ii) The values herostated for the beginnings of centuries 38 to 42 are for mean sunrise on Saturdays, while his are for mean sunrise on the following Sundays.

TABLE LXXIX.

MEAN SUNRISE VALUES OF a (DISTANCE OF MEAN MOON FROM MEAN SUN), IN 10,000THS OF CIRCLE, FOR A MONTH PREVIOUS TO THE DAY OF MEAN MESHA-SAMKRĀNTI.

| Interval of
days from
mean Mēsha-
samkrānti
day. | W.-D. | a ,
(mean
sunrise
value). | Interval of
days from
mean Mēsha-
samkrānti
day. | W.-D. | a ,
(mean
sunrise
value). |
|--|-------|--------------------------------------|--|-------|--------------------------------------|
| 31 | 4 | 9502-4119 | 15 | 6 | 4920-5219 |
| 30 | 5 | 9841-0438 | 14 | 0 | 5259-1538 |
| 29 | 6 | 179-6756 | 13 | 1 | 5597-7856 |
| 28 | 0 | 518-3075 | 12 | 2 | 5936-4175 |
| 27 | 1 | 856-9394 | 11 | 3 | 6275-0494 |
| 26 | 2 | 1195-5713 | 10 | 4 | 6613-6813 |
| 25 | 3 | 1534-2032 | 9 | 5 | 6952-3131 |
| 24 | 4 | 1872-8350 | 8 | 6 | 7290-9450 |
| 23 | 5 | 2211-4669 | 7 | 0 | 7629-5769 |
| 22 | 6 | 2550-0988 | 6 | 1 | 7968-2088 |
| 21 | 0 | 2888-7306 | 5 | 2 | 8306-8406 |
| 20 | 1 | 3227-3625 | 4 | 3 | 8645-4725 |
| 19 | 2 | 3565-9944 | 3 | 4 | 8984-1044 |
| 18 | 3 | 3904-6263 | 2 | 5 | 9322-7263 |
| 17 | 4 | 4243-2581 | 1 | 6 | 9661-3681 |
| 16 | 5 | 4581-8900 | 0 | 0 | 0 |

N.B.—The use of this Table is explained in example 1.

TABLE LXXX.

THE SUN'S MEAN LONGITUDE DURING THE HINDU SOLAR YEAR, IN 10,000THS OF CIRCLE, ACCORDING TO THE FIRST ARYA SIDDHĀNTA, AT PERIODS OF 24 HOURS EACH, MEASURED FROM THE MOMENT OF MEAN MESHA-SAMKRĀNTI.

The same in degrees, etc., can be calculated by Table XLIV, Vol. XIV above.

| 24-hour period. | Sun's mean longitude. | 24-hour period. | Sun's mean longitude. | 24-hour period. | Sun's mean longitude. | 24-hour period. | Sun's mean longitude. |
|--|-----------------------|--------------------------------------|-----------------------|------------------------------------|-----------------------|------------------------------------|-----------------------|
| 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| At moment of mean Mēśha-samkrānti. | 0 | 42 | 1149-8700 | 87 | 2381-8736 | 127 | 3476-9879 |
| | | 43 | 1177-2479 | 88 | 2409-2514 | 128 | 3504-3657 |
| | | 44 | 1204-5257 | 89 | 2436-6293 | 129 | 3531-7436 |
| | | 45 | 1232-0036 | 90 | 2464-0071 | 130 | 3559-1214 |
| | | 46 | 1259-3814 | 91 | 2491-3850 | 131 | 3586-4993 |
| | | 47 | 1286-7593 | At moment of mean Kārkā-samkrānti. | 2500-0 | 132 | 3613-8772 |
| | | 48 | 1314-1371 | | | 133 | 3641-2550 |
| | | 49 | 1341-5150 | | | 134 | 3668-6329 |
| | | 50 | 1368-8929 | | | 135 | 3696-0107 |
| | | 51 | 1396-2707 | | | 136 | 3723-3886 |
| | | 52 | 1423-6486 | | | 137 | 3750-7664 |
| | | 53 | 1451-0264 | | | 138 | 3778-1443 |
| | | 54 | 1478-4043 | | | 139 | 3805-5222 |
| | | 55 | 1505-7821 | | | 140 | 3832-9000 |
| | | 56 | 1533-1600 | | | 141 | 3860-2779 |
| 1 | 27-3779 | 57 | 1560-5379 | 92 | 2518-7629 | 142 | 3887-6557 |
| 2 | 54-7557 | 58 | 1587-9157 | 93 | 2546-1407 | 143 | 3915-0336 |
| 3 | 82-1336 | 59 | 1615-2936 | 94 | 2573-5186 | 144 | 3942-4114 |
| 4 | 109-5114 | 60 | 1642-6714 | 95 | 2600-8964 | 145 | 3969-7893 |
| 5 | 136-8893 | At moment of mean Mithuna-samkrānti. | 1666-6 | 96 | 2628-2743 | 146 | 3997-1672 |
| 6 | 164-2671 | | | 97 | 2655-6521 | 147 | 4024-5450 |
| 7 | 191-6450 | | | 98 | 2683-0300 | 148 | 4051-9229 |
| 8 | 219-0229 | | | 99 | 2710-4079 | 149 | 4079-3007 |
| 9 | 246-4007 | | | 100 | 2737-7857 | 150 | 4106-6786 |
| 10 | 273-7786 | | | 101 | 2765-1636 | 151 | 4134-0564 |
| 11 | 301-1564 | | | 102 | 2792-5414 | 152 | 4161-4343 |
| 12 | 328-5343 | | | 103 | 2819-9193 | At moment of mean Kānyā-samkrānti. | 4166-6 |
| 13 | 355-9121 | | | 104 | 2847-2971 | | |
| 14 | 383-2900 | | | 105 | 2874-6750 | | |
| 15 | 410-6679 | | | 106 | 2902-0529 | | |
| 16 | 438-0457 | | | 107 | 2929-4307 | | |
| 17 | 465-4236 | | | 108 | 2956-8086 | | |
| 18 | 492-8014 | | | 109 | 2984-1864 | | |
| 19 | 520-1793 | | | 110 | 3011-5643 | | |
| 20 | 547-5571 | | | 111 | 3038-9421 | | |
| 21 | 574-9350 | | | 112 | 3066-3200 | | |
| 22 | 602-3129 | 61 | 1670-0493 | 113 | 3093-6979 | 153 | 4188-8122 |
| 23 | 629-6907 | 62 | 1697-4271 | 114 | 3121-0757 | 154 | 4216-1900 |
| 24 | 657-0686 | 63 | 1724-8050 | 115 | 3148-4536 | 155 | 4243-5679 |
| 25 | 684-4464 | 64 | 1752-1829 | 116 | 3175-8314 | 156 | 4270-9457 |
| 26 | 711-8243 | 65 | 1779-5607 | 117 | 3203-2093 | 157 | 4298-3236 |
| 27 | 739-2021 | 66 | 1806-9386 | 118 | 3230-5872 | 158 | 4325-7014 |
| 28 | 766-5800 | 67 | 1834-3164 | 119 | 3257-9650 | 159 | 4353-0793 |
| 29 | 793-9579 | 68 | 1861-6943 | 120 | 3285-3429 | 160 | 4380-4572 |
| 30 | 821-3357 | 69 | 1889-0721 | 121 | 3312-7207 | 161 | 4407-8350 |
| At moment of mean Vṛishabha-samkrānti. | 833-3 | 70 | 1916-4500 | At moment of mean Śiṃhā-samkrānti. | 3333-3 | 162 | 4435-2129 |
| | | 71 | 1943-8279 | | | 163 | 4462-5907 |
| | | 72 | 1971-2057 | | | 164 | 4489-9686 |
| | | 73 | 1998-5836 | | | 165 | 4517-3464 |
| | | 74 | 2025-9614 | | | 166 | 4544-7243 |
| | | 75 | 2053-3393 | | | 167 | 4572-1022 |
| | | 76 | 2080-7171 | | | 168 | 4599-4800 |
| | | 77 | 2108-0950 | | | 169 | 4626-8579 |
| | | 78 | 2135-4729 | | | 170 | 4654-2357 |
| | | 79 | 2162-8507 | | | 171 | 4681-6136 |
| 31 | 848-7136 | 80 | 2190-2286 | 122 | 3340-0986 | | |
| 32 | 876-0914 | 81 | 2217-6064 | 123 | 3367-4764 | | |
| 33 | 903-4693 | 82 | 2244-9843 | 124 | 3394-8543 | | |
| 34 | 930-8471 | 83 | 2272-3621 | 125 | 3422-2322 | | |
| 35 | 958-2250 | 84 | 2299-7400 | 126 | 3449-6100 | | |
| 36 | 985-6029 | 85 | 2327-1179 | | | | |
| 37 | 1012-9807 | 86 | 2354-4957 | | | | |
| 38 | 1040-3586 | | | | | | |
| 39 | 1067-7364 | | | | | | |
| 40 | 1095-1143 | | | | | | |
| 41 | 1122-4921 | | | | | | |

TABLE LXXX—Contd.

| 24-hour period. | Sun's mean longitude. | 24-hour period. | Sun's mean longitude. | 24-hour period. | Sun's mean longitude. | 24-hour period. | Sun's mean longitude. |
|---|-----------------------|--|-----------------------|---|-----------------------|---|-----------------------|
| 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 172 | 4708-9914 | 220 | 6023-1286 | 272 | 7446-7772 | 320 | 8760-9143 |
| 173 | 4736-3693 | 221 | 6050-5064 | 273 | 7474-1550 | 321 | 8788-2922 |
| 174 | 4763-7472 | 222 | 6077-8843 | At moment
of mean
Makara
sankranti. | 7500-0 | 322 | 8815-6700 |
| 175 | 4791-1250 | 223 | 6105-2622 | | | 323 | 8843-0479 |
| 176 | 4818-5029 | 224 | 6132-6400 | | | 324 | 8870-4257 |
| 177 | 4845-8807 | 225 | 6160-0179 | | | 325 | 8897-8036 |
| 178 | 4873-2586 | 226 | 6187-3957 | | | 326 | 8925-1814 |
| 179 | 4900-6364 | 227 | 6214-7736 | | | 327 | 8952-5593 |
| 180 | 4928-0143 | 228 | 6242-1514 | | | 328 | 8979-9372 |
| 181 | 4955-3922 | 229 | 6269-0593 | | | 329 | 9007-3150 |
| 182 | 4982-7700 | 230 | 6296-9072 | | | 330 | 9034-6929 |
| At moment
of mean
Tula sam-
kranti. | 5000-0 | 231 | 6324-2850 | 274 | 7501-5329 | 331 | 9062-0707 |
| | | 232 | 6351-6629 | 275 | 7528-9107 | 332 | 9089-4486 |
| | | 233 | 6379-0407 | 276 | 7556-2886 | 333 | 9116-8264 |
| | | 234 | 6406-4186 | 277 | 7583-6664 | 334 | 9144-2043 |
| | | 235 | 6433-7964 | 278 | 7611-0443 | At moment
of mean
Mina-sam-
kranti. | 9166-6 |
| | | 236 | 6461-1743 | 279 | 7638-4222 | | |
| | | 237 | 6488-5522 | 280 | 7665-8000 | | |
| | | 238 | 6515-9300 | 281 | 7693-1779 | | |
| | | 239 | 6543-3079 | 282 | 7720-5557 | | |
| | | 240 | 6570-6857 | 283 | 7747-9336 | | |
| | | 241 | 6598-0636 | 284 | 7775-3114 | | |
| | | 242 | 6625-4414 | 285 | 7802-6893 | | |
| | | 243 | 6652-8193 | 286 | 7830-0672 | | |
| | | At moment
of mean
Dhanu s-
sankranti. | 6666-6 | 287 | 7857-4450 | 335 | 9171-5822 |
| 183 | 5010-1479 | | | 288 | 7884-8229 | 336 | 9198-9600 |
| 184 | 5037-5257 | | | 289 | 7912-2007 | 337 | 9226-3379 |
| 185 | 5064-9036 | | | 290 | 7939-5786 | 338 | 9253-7157 |
| 186 | 5092-2814 | | | 291 | 7966-9564 | 339 | 9281-0936 |
| 187 | 5119-6593 | | | 292 | 7994-3343 | 340 | 9308-4715 |
| 188 | 5147-0372 | | | 293 | 8021-7122 | 341 | 9335-8493 |
| 189 | 5174-4150 | | | 294 | 8049-0900 | 342 | 9363-2272 |
| 190 | 5201-7929 | | | 295 | 8076-4679 | 343 | 9390-6050 |
| 191 | 5229-1707 | | | 296 | 8103-8457 | 344 | 9417-9829 |
| 192 | 5256-5486 | | | 297 | 8131-2236 | 345 | 9445-3607 |
| 193 | 5283-9264 | | | 298 | 8158-6014 | 346 | 9472-7386 |
| 194 | 5311-3043 | | | 299 | 8185-9793 | 347 | 9500-1165 |
| 195 | 5338-6822 | | | 300 | 8213-3572 | 348 | 9527-4943 |
| 196 | 5366-0600 | | | 301 | 8240-7350 | 349 | 9554-8722 |
| 197 | 5393-4379 | | | 302 | 8268-1129 | 350 | 9582-2500 |
| 198 | 5420-8157 | | | 303 | 8295-4907 | 351 | 9609-6279 |
| 199 | 5448-1936 | | | 304 | 8322-8686 | 352 | 9637-0057 |
| 200 | 5475-5714 | | | At moment
of mean
Kumbha
sankranti. | 8333-3 | 353 | 9664-3836 |
| 201 | 5502-9493 | | | | | 354 | 9691-7615 |
| 202 | 5530-3272 | | | | | 355 | 9719-1393 |
| 203 | 5557-7050 | | | | | 356 | 9746-5172 |
| 204 | 5585-0829 | | | | | 357 | 9773-8950 |
| 205 | 5612-4607 | | | | | 358 | 9801-2729 |
| 206 | 5639-8386 | | | | | 359 | 9828-6507 |
| 207 | 5667-2164 | | | | | 360 | 9856-0286 |
| 208 | 5694-5943 | | | | | 361 | 9883-4065 |
| 209 | 5721-9722 | | | | | 362 | 9910-7843 |
| 210 | 5749-3500 | | | | | 363 | 9938-1622 |
| 211 | 5776-7279 | | | | | 364 | 9965-5400 |
| 212 | 5804-1057 | | | | | 365 | 9992-9179 |
| 213 | 5831-4836 | | | At moment
of mean
Vrischika
sankranti. | 8333-3 | At moment
of mean
Māsa s-
sankranti
of follow-
ing year. | 10,000-0 |
| At moment
of mean
Vrischika
sankranti. | 5833-3 | 262 | 7172-9986 | 305 | 8350-2464 | | |
| | | 263 | 7200-3764 | 306 | 8377-6243 | | |
| | | 264 | 7227-7543 | 307 | 8405-0022 | | |
| | | 265 | 7255-1322 | 308 | 8432-3800 | | |
| | | 266 | 7282-5100 | 309 | 8459-7579 | | |
| | | 267 | 7309-8879 | 310 | 8487-1357 | | |
| | | 268 | 7337-2657 | 311 | 8514-5136 | | |
| 214 | 5868-8614 | 269 | 7364-6436 | 312 | 8541-8914 | | |
| 215 | 5896-2393 | 270 | 7392-0214 | 313 | 8569-2693 | | |
| 216 | 5913-6172 | 271 | 7419-3993 | 314 | 8596-6472 | | |
| 217 | 5940-9950 | | | 315 | 8624-0250 | | |
| 218 | 5968-3729 | | | 316 | 8651-4029 | | |
| 219 | 5995-7507 | | | 317 | 8678-7807 | | |
| | | | | 318 | 8706-1586 | | |
| | | | | 319 | 8733-5364 | | |

TABLE LXXXI.

SUN'S MEAN LONGITUDE. INCREASE IN FRACTIONS OF DAY ACCORDING TO THE FIRST ARYA SIDDHANTA.

(For the same in degrees, etc., see above, Vol. XIV, Table XLIV.)

| INCREASE PER HOUR. | | INCREASE PER MINUTE. | | | | INCREASE PER SECOND. | | | |
|--------------------|-------------------------|----------------------|-------------------------|-----|-------------------------|----------------------|-------------------------|-----|-------------------------|
| No. | In 10,000ths of circle. | No. | In 10,000ths of circle. | No. | In 10,000ths of circle. | No. | In 10,000ths of circle. | No. | In 10,000ths of circle. |
| 1 | 1-1407 | 1 | 0-0190 | 31 | 0-5894 | 1 | 0-0003 | 31 | 0-0008 |
| 2 | 2-2815 | 2 | 0-0380 | 32 | 0-6084 | 2 | 0-0006 | 32 | 0-0101 |
| 3 | 3-4222 | 3 | 0-0570 | 33 | 0-6274 | 3 | 0-0010 | 33 | 0-0105 |
| 4 | 4-5630 | 4 | 0-0760 | 34 | 0-6464 | 4 | 0-0013 | 34 | 0-0108 |
| 5 | 5-7037 | 5 | 0-0951 | 35 | 0-6654 | 5 | 0-0016 | 35 | 0-0111 |
| 6 | 6-8445 | 6 | 0-1141 | 36 | 0-6844 | 6 | 0-0019 | 36 | 0-0114 |
| 7 | 7-9852 | 7 | 0-1331 | 37 | 0-7035 | 7 | 0-0022 | 37 | 0-0117 |
| 8 | 9-1260 | 8 | 0-1521 | 38 | 0-7225 | 8 | 0-0025 | 38 | 0-0120 |
| 9 | 10-2667 | 9 | 0-1711 | 39 | 0-7415 | 9 | 0-0029 | 39 | 0-0124 |
| 10 | 11-4074 | 10 | 0-1901 | 40 | 0-7605 | 10 | 0-0032 | 40 | 0-0127 |
| 11 | 12-5482 | 11 | 0-2091 | 41 | 0-7795 | 11 | 0-0035 | 41 | 0-0130 |
| 12 | 13-6889 | 12 | 0-2281 | 42 | 0-7985 | 12 | 0-0038 | 42 | 0-0133 |
| 13 | 14-8297 | 13 | 0-2472 | 43 | 0-8175 | 13 | 0-0041 | 43 | 0-0136 |
| 14 | 15-9704 | 14 | 0-2662 | 44 | 0-8365 | 14 | 0-0044 | 44 | 0-0139 |
| 15 | 17-1112 | 15 | 0-2852 | 45 | 0-8556 | 15 | 0-0048 | 45 | 0-0143 |
| 16 | 18-2519 | 16 | 0-3042 | 46 | 0-8746 | 16 | 0-0051 | 46 | 0-0146 |
| 17 | 19-3926 | 17 | 0-3232 | 47 | 0-8936 | 17 | 0-0054 | 47 | 0-0149 |
| 18 | 20-5334 | 18 | 0-3422 | 48 | 0-9126 | 18 | 0-0057 | 48 | 0-0152 |
| 19 | 21-6741 | 19 | 0-3612 | 49 | 0-9316 | 19 | 0-0060 | 49 | 0-0155 |
| 20 | 22-8149 | 20 | 0-3802 | 50 | 0-9506 | 20 | 0-0063 | 50 | 0-0158 |
| 21 | 23-9556 | 21 | 0-3993 | 51 | 0-9696 | 21 | 0-0067 | 51 | 0-0162 |
| 22 | 25-0964 | 22 | 0-4183 | 52 | 0-9886 | 22 | 0-0070 | 52 | 0-0165 |
| 23 | 26-2371 | 23 | 0-4373 | 53 | 1-0077 | 23 | 0-0073 | 53 | 0-0168 |
| | | 24 | 0-4563 | 54 | 1-0267 | 24 | 0-0076 | 54 | 0-0171 |
| | | 25 | 0-4753 | 55 | 1-0457 | 25 | 0-0079 | 55 | 0-0174 |
| | | 26 | 0-4943 | 56 | 1-0647 | 26 | 0-0082 | 56 | 0-0177 |
| | | 27 | 0-5133 | 57 | 1-0837 | 27 | 0-0086 | 57 | 0-0181 |
| | | 28 | 0-5323 | 58 | 1-1027 | 28 | 0-0089 | 58 | 0-0184 |
| | | 29 | 0-5514 | 59 | 1-1217 | 29 | 0-0092 | 59 | 0-0187 |
| | | 30 | 0-5704 | | | 30 | 0-0095 | | |

No. 7.—TWO NEW GRANTS OF DHRUVASENA [I.] FROM PALITANA.

By V. S. SUKTHANKAR, PH.D.

I edit here two new Valabhi copper-plate grants (one complete and one incomplete) which were presented, in 1918, to the Trustees of the Prince of Wales Museum, Bombay, by the Bhāvnagar Darbar, which is ever ready to further the cause of epigraphic research by placing ungrudgingly the materials, as they are discovered, in the hands of students of Indian history for investigation and publication, and, when possible, by having them exhibited in centrally situated museums. The plates under reference were discovered at the bottom of a small tank outside the Śatruñjaya Gate at Pālītānā while the tank was being drained during the time of the late Thakor Saheb of that State.¹

A.—PLATES OF DHRUVASENA I. ; [VALABHI]-SAM[VAT] 207.

The plates, which are inscribed on one side only, are two in number, each measuring roughly 11½" broad by 6¼" high. The edges are just slightly raised in order to protect the writing, which (excepting portions of ll. 1-4) is in a state of perfect preservation. The plates are of fair thickness; but the letters, being deep, show through on the reverse sides. The engraving is well executed. Each of the plates has two holes bored in it. A ring of copper passing through one pair of them serves to hold the plates together at one end. The seal, which is an invariable accompaniment of such plates, is missing. The aggregate weight of the plates is about 102 *tolas*. Each plate contains twelve lines of writing; the last line but one of the second plate contains the date.

From the foregoing description of the plates, as well as from the facsimiles of them appearing with this article, it will be evident that this record does not differ in any striking particular from any of the hitherto published records of the same king. Only in the portion dealing with the grant proper does the text of this inscription differ, for example, from that of other plates of this king which were discovered some years back also at Pālītānā, and have been edited by Dr. Sten Konow in a former issue of this Journal.² The royal donor, Dhruvasēna, as well as the *dataka* Mammaka and the writer Kikkaka, are names well known to the Indian epigraphist. It will, therefore, be unnecessary to go here into a minute description of the characters and orthography of this inscription. It will suffice to observe that the alphabet offers a specimen of final *t* (l. 15), final *m* (l. 23) and the numerical ideograms 200, 7, and 5, and that the name of the founder of the dynasty is spelt as *Bhaṭakka* (l. 3). At the end of line 12 is to be found a horizontal stroke, about ¼" long, evidently drawn with a view to fill up the empty space remaining at the end. The reason for leaving the space vacant appears to be that the writer did not wish to commence, at the end of the line, a long word the whole of which would not have been contained in the short space that was left over.

The inscription is one of the *Maharāja Dhruvasēna* [I.] of the *Maitraka* dynasty, and the grant contained in it is issued from the city of *Valabhī*. The object of the inscription appears to be to record the confirmation by Dhruvasēna of the donee, a *Brāhmaṇa* named *Mādhava*, of the *Śunaka gōtra*, student of the *Chhandōga School*, and resident of the village of *Jyēshthānaka* (stated to be *Akshasaraka-prāvṛṣṭya*) in the *Hastavapra-haraṇī* in the possession of some

¹ My friend Pandit Girijasankar Vallabhji of Rajkot, Curator of the Prince of Wales Museum, Bombay, informs me that the five Pālītānā plates edited by Prof. Konow (above, Vol. XI, pp. 104 ff.) were discovered at the same place and at the same time as the plates here described.

² Above, Vol. XI, pp. 104 ff.

land already enjoyed by him in the village of which he was a resident. Besides Hastavapra, which is the modern **Hathab** (6 miles south of Goghā in the Bhāvnagar State), and Valabhī, which is commonly identified with the modern Valā (situated in 21° 52' N. and 71° 57' E.), none of the places can be located. The date of the record is the year 207 (given as usual in numerical ideograms), and the 5th (*tithi*) of the dark fortnight of Vaiśākha. The year when referred to the Gupta-Valabhī era yields A.D. (207 + 320) = A.D. 527.

There are two expressions in this inscription, both occurring in the portion dealing with the grant proper, which deserve some comment: they are *Akshasaraka-prāvēśya* (l. 12) and *sa-saibaram* (l. 16). The latter we will consider first.

Being mentioned along with the well-known technical expressions *sa-hirany-ādēyam* and *sa-bhāta-rāta*, *sa-saibaram* must be a term of like nature, i.e. a technicality of the lawyers; but what its significance may be I am unable to surmise. There can be no question regarding the correctness of the reading; the letters are perfectly distinct. The word *saibara* is not to be found in dictionaries; nor have I come across it elsewhere. I can only think that it may be, as it stands, a clerical error; but I am unable to suggest any plausible emendation for it.

The word *prāvēśya* in the other expression referred to above is also one that presents some difficulty to the interpreter. Here it is used in a compound with *Akshasaraka*, evidently a place-name, and serves to locate more definitely the village Jyēsthānaka situated in the Hastavapra-haranī. As far as I know, the word *prāvēśya* has been met with only twice before: once in another Valabhī grant, occurring there in a compound with the same place-name *Akshasaraka*, and once again in the Khariar grant of Mahāsudēva, compounded with the word *Navannaka*, which is also a place-name.

The former record forms one of the five Valabhī grants from Pālītāpā¹ edited by Prof. Sten Konow, and is a grant of Dhruvasēna I., dated in Samvat 210. In that connection Prof. Konow rightly points out that the phrase *Akshasaraka-prāvēśya* of the grant corresponds to the *Akshasaraka-prāpīya* in a third Valabhī grant,² viz. the Gaṇḍśgaḍ (Baroda) plates of Dhruvasēna, dated Samvat 207. Hultsch, when editing the latter grant, translated the phrase by 'which belongs to the *Akshasaraka-prāpa*.' Prof. Konow, who regards *prāvēśya* and *prāpīya* as synonyms, rejects Hultsch's rendering of *Akshasaraka-prāpīya* and advances the suggestion that *prāvēśya* in this connection means the same thing as in the phrase *a-chāṭa-bhaṭa-prāvēśya*, and accordingly translates the phrase by 'which can be entered from (i.e., which borders on) *Akshasaraka*.' I cannot, in the first place, admit that the expressions *a-chāṭa-bhaṭa-prāvēśya* and *Akshasaraka-prāvēśya* correspond exactly. For in the former the first member of the compound comprises the logical subject of the verb contained in *prāvēśya*; but such cannot be the case with the second expression, even if we assign to it the meaning which Prof. Konow does. Secondly, I do not understand what is meant by saying that a village could be 'entered' from such and such a place. If, moreover, *prāvēśya* meant the same thing as 'bordering on,' as Prof. Konow asserts, I cannot help thinking that the writer would have employed a simple word like *samtā* or *pārśva-vartin*, which lie at hand, to express that simple idea of proximity rather than use the circumlocution of *prāvēśya* or *prāpīya*. Hultsch, on the other hand, appears to me to be undoubtedly on the right track. He looks upon *prāpīya* as a derivative of *prāpa*, which he takes to be a word denoting a territorial division smaller than an *āhāra*. Similarly the analogous term *prāvēśya* should also be looked upon as a *taddhita* of *prāvēśa*. That this derivation is correct may be seen from the Khariar plates of Mahāsudēva, in which a village is described (l. 4) as *Kṣhitimad-āhāriya* and *Navannaka-etot-prāvēśya*. No one will dispute that *āhāriya* is derived from *āhāra* ('district,' 'province') by the addition of the suffix *-iya*. That supplies us with the clue to the explanation of the other words under consideration here. All these words are derived

¹ Above, Vol. XI, pp. 104 ff., and Plates.

² Above, Vol. III, p. 320, and Plate.

by the addition of the secondary -(i)ya to the strengthened forms of the roots *ā-hri*, *pra-(ā-)viś* and *pra-(ā-)āp* ('bring to,' 'carry to'), words with only minute differences of meaning. I feel, therefore, constrained to reject the interpretation of Prof. Konow in favour of the other. *Prāpīya* I take to be 'that which belongs to the *prāpa*,' and *prāvīśya* 'that which belongs to the *prāvīśa* (or *pravīśa*)'; both *prāpa* and *prāvīśa* I regard as territorial divisions smaller than the *dhāra*.

TEXT.¹Plate A₁.

- 10 ²परमभट्टारकपादानुद्ध्या(ध्या) तो महाराजभुवसेनः कुमली सर्वानिव खानायुक्त-
नियुक्तकचाट-
11 भट्टाग्निकमहत्तरभुवखानाधिकारणिकदाण्डपाशिकादीनन्यास³ यथासंबन्धमान-
'काननु-
12 दर्शयत्यस्तु वसंविदितं यथा मया हस्तवप्रहरण्यामचसरकप्रावेश⁵

Plate A₂.

- 13 ज्येष्ठानकग्रामे उत्तरसीनि पादावर्त्तयतं पञ्चधिकं तस्मिन्नव⁶ ग्रामव'व्यग्रनक-
14 सगोचारीणां छन्दोगसब्रह्मचारीणां⁸ ब्रह्मणमाधवपूर्वभुज्यभुज्यमानकं⁹(:) मातापित्रीः
15 पुण्याप्यायनायात्मना¹⁰ वैदिकामुभिकयथाभिलषितफलावाप्तिनिमित्ता¹¹माचन्द्रार्का-
र्णवक्षितिसरित्-
16 पर्वतस्थितिसमकालीनं पुत्रपौत्राग्वयभोज्य¹² सशैवरं सहि[र*]त्यादेयं सभूतवा-
तप्रत्यायविशुद्धा¹³
17 उदकातिसर्गेण ब्रह्मदेयं निरुद्ध¹⁴[।*] यतः एषां ब्रह्मदेयस्थित्या भुजता¹⁵
क्षयतां प्रदिशताच¹⁶
18 स्वस्याप्यावधा¹⁷ विचारणा वा न कार्यास्मदंशजैर¹⁸गामिभद्रवृत्तिभिश्च¹⁹नित्या-
न्यैश्वर्याण्यस्थिरं मानुष्यं
19 सामान्य²⁰ च भूमिदानफलमवगच्छन्निरयमस्मादायीनुमन्तव्य [।:]* (उ) यश्चिच्छिन्द्या-
दच्छिद्यमानं²¹ वानुमोदे-

¹ From the original plates, and a set of estampages.

² Up to this, the text is practically identical with the text of the Palitānā plate of Dhruvasēna I. (dated samvat 206), published above, Vol. XI, pp. 106 ff. The only *variae lectiones* are unimportant mistakes of orthography, which it would be unnecessary to register individually as the facsimiles are there for reference.

³ Read ॐनास.

⁴ Read ॐकाननु-.

⁵ In the original a short horizontal stroke after श्य.

⁶ Read श्वेव.

⁷ A short vacant space between व and व्य. Read ग्रामवास्तव्य°.

⁸ Read ॐचारिणां ब्राह्मण°.

⁹ Read ॐपूर्वभुज्यभुज्यमान°. The *anuvāsa* is written over the line between कः and ना. The letters *pūrvā-bhujyā-bhujyamānakaḥ* have been engraved over some faintly incised letters.

¹⁰ Read न.

¹¹ Read त.

¹² Read ज्य.

¹³ Read व.

¹⁴ Read ह.

¹⁵ Read भुजता.

¹⁶ Read तास.

¹⁷ Read ॐनाथा.

¹⁸ Read रा.

¹⁹ Read या.

²⁰ Read न.

²¹ Read यश्चिच्छिन्द्यादच्छिद्यमानं.

- 20 त्व पंचभिः महापातकैस्त्रोपपातकैस्तु यत्तत्त्व¹दपि चात्र व्यासगीताः श्लोका
भवन्ति [॥*] बहुभिर्व्वसुधा
- 21 भुक्ता राजभिस्सगरादिभिः [॥*] यस्य यस्य यदा भूमिः तस्य तस्य तदा
फलं [॥*] स्वदत्तां परदत्तां वा यो हरेत्
- 22 वसुन्धरां [॥*] गवां शतसहस्रस्य हन्तुः [॥*] प्राप्नोति किल्बिषां³ [॥*] पूर्व-
दत्तां द्विजातिभ्यो यद्वादत्त युधिष्ठिरः [॥*]
- 23 महि⁴ महिमतां श्रेष्ठ दानाच्छ्रेयोनुपालनम् [॥*] दूतकः प्रतीहारमन्त्रकः [॥*]
सं २०० ७ वैशख⁵ व ५ [॥*]
- 24 स्वहस्तो मम महाराजध्रुव⁶सेनस्य [॥*] लिखितं किककेनति⁷ [॥*]

TRANSLATION.

[Ll. 1-11 contain the usual preamble; for translation, cf., for instance, that of the "opening lines of the Pālitānā plates, No. 1, edited by Prof. Konow, *Ep. Ind.*, Vol. XI, p. 108.]

(Ll. 12-16.) Be it known to you that for the purpose of increasing the religious merit of (my) mother and father, and for the sake of the attainment of the desired reward both in this world and in the next, I have confirmed, as *brahma-dēya*, with libation of water, (the enjoyment of) one hundred and sixty *pādāvarittas*, on the northern boundary of the *Jyōshthānaka* village belonging to the *Akshasāraka-prārēśya* in the *Hastavapra-haraṇi*, which had (formerly) been and are (still) being enjoyed (by the donee?), for (the benefit of) the resident of the same village, (namely,) the *Brāhmaṇa Mādhava* of the *Śunaka gōtra*, a student of the *Chhandōga* School,—to last for the same time as the moon, sun, ocean, earth, the rivers and mountains, to be enjoyed by the succession of his sons and sons' sons,—with (?) *śaibara*, with gold (and) *ādēya*, with *bhūta*, *vāta*, and (?) surety of holding (*pratyāya*).

(Ll. 17-19.) Wherefore, no enquiry should be made or obstruction caused (to him) by any one, while he is, according to the proper conditions of a *brahma-dēya*, enjoying, cultivating, or assigning (it to others). And this our gift should be assented to by those born in our lineage, and by future good kings, bearing in mind that power is perishable, the life of man is uncertain, and that the reward of a gift of land is common. And he who confiscates it or assents to its confiscation incurs the guilt of the five great sins together with the minor ones.

(Ll. 20-22.) There are also two verses sung by Vyāsa about this.

[Here follow two of the customary verses.]

(L. 23.) The *dātaka* is the *pratihāra Mammaka*. (Dated the) 5th (*tithi*) of the dark (fortnight) of *Vaiśākha* (in the) year 200 7.

(L. 24.) (This is) the sign-manual of me *Mahārāja Dhruvasēna* [I.]. Written by *Kikkaka*.

B.—ANOTHER PLATE OF [DHURVASENA I.]

This plate, which contains only the opening portion of a land-grant of the Maitraka king Dhruvasēna I., is inscribed on one side only and measures roughly 10½" broad by 6½" high. The

¹ Read इत्यत्र.

² Over ॥ there is a peculiar sign, the meaning of which is not apparent. [I think it is *upadmāniya*.—Ed.]

³ Read वं.

⁴ Read हं.

⁵ Read वैशाख.

⁶ Read नेति.

⁷ The construction of line 14 is somewhat confused; it is not clear who the donee was, or who, at the time of the grant, was in possession of the land which is the object of the grant. As it stands, the text does not make any sense; my rendering is conjectural.

A i.

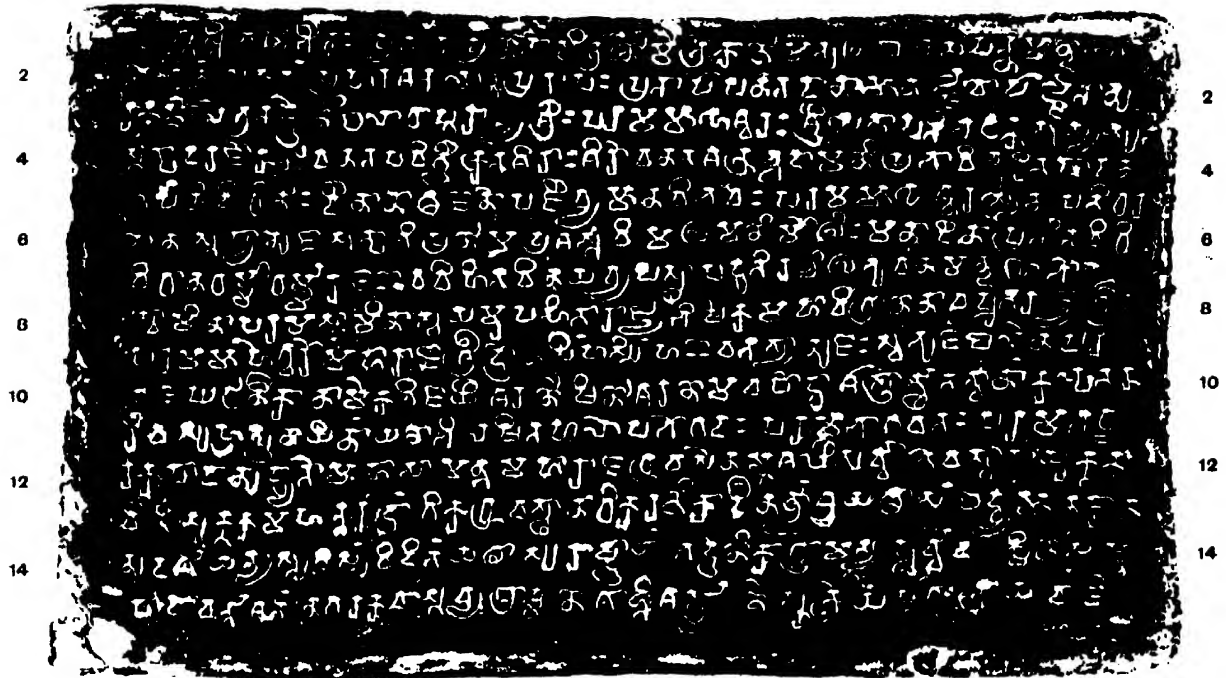
2 2
4 4
6 6
8 8
10 10
12 12

2 2
4 4
6 6
8 8
10 10
12 12

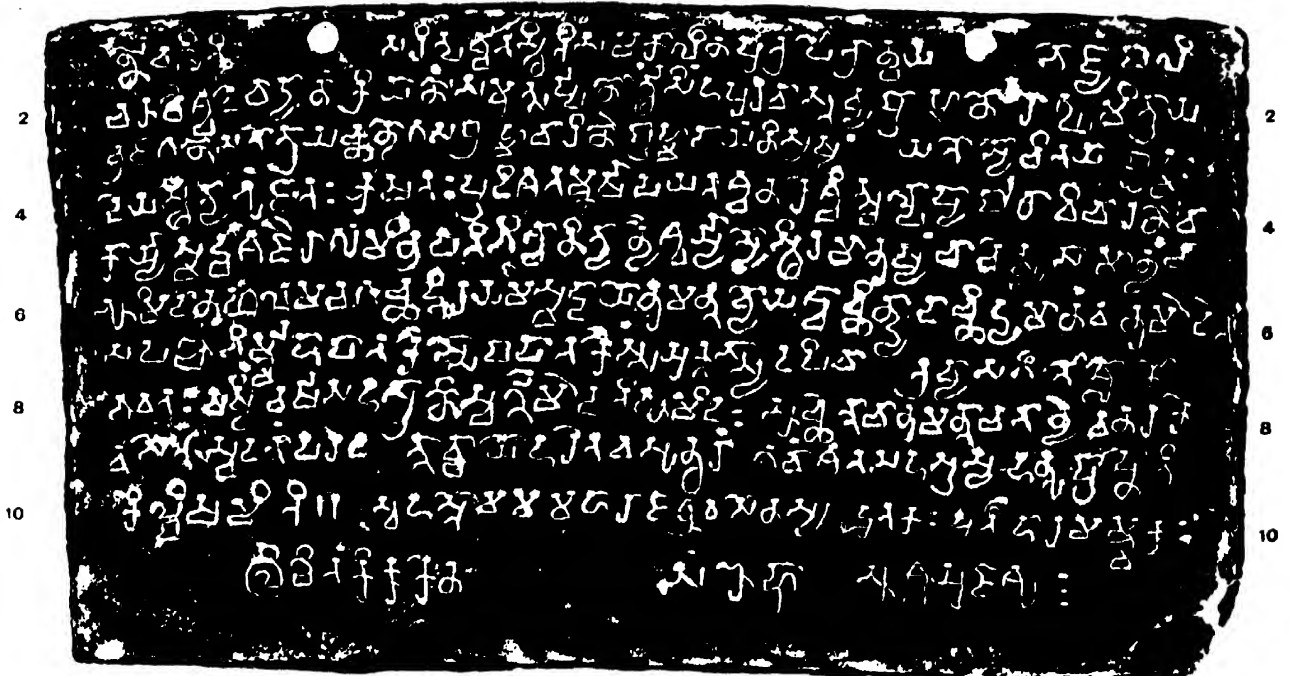
A ii.

14 14
16 16
18 18
20 20
22 22
24 24

14 14
16 16
18 18
20 20
22 22
24 24



Kathiawad Plate of Dhruvasena [I]: Samvat 206.



edges are just slightly raised, in order to protect the writing, which is in a state of excellent preservation throughout. The letters, which are deeply incised, show through on the reverse side of the plate. The engraving is well executed. The plate has a pair of holes bored at two adjacent corners and intended for receiving the ring and seal, which are missing. Its weight is 56 *tolas*. It contains fifteen lines of writing. The letters are of the period to which the plate refers itself, and of the type met with on other plates of the Maitraka dynasty. In short, this record is exactly like any of the large number of grants of Dhruvasēna I. that have latterly been brought to light. A detailed description of the characters, language and orthography of these plates, or even an English rendering of the text, seems superfluous. We may take it for granted that the *dātaka* of this grant was the *pratihāra* Mammaka, and the writer Kikkaka.

The grant was issued from Valabhi by the *Mahāsāmanta Mahārāja Dhruvasēna* [I.] to the Brāhmaṇa Śāntīśarman of the Ātrēya *gōtra*, [a student of] the Vāji[sanēya] School and a resident of Nagaraka, either bestowing upon him or confirming him in the possession of one hundred *pādāvarṭtas* of land on the south-eastern boundary of the village of Bhadrēṇikā, situated in Surāshṭrā.

I am unable to identify Bhadrēṇikā. Nagaraka is probably Vaṇnagar, the home of the Nāgar Brāhmans.

TEXT.¹

Plate B.

- 12 . . . 'महासामन्तमहाराजध्रुवसेनकुशलो सर्वनिव स्वानायुक्तक-
 13 विनियुक्तकमहत्तरद्रांगिकध्रुवस्थानाधिकरणिकादीनन्याश्च यथासंबद्धमानकान-
 14 नुदर्शयत्यस्तु वस्त्वविदितं यथा सुराद्रायां भद्रेणिकाग्रामस्य पूर्वदिक्षिण-
 सिन्धि³,
 15 पादावर्त्तशतं नगरकवास्तव्यनाम्नशान्तिशर्मणे आच्येयसगोत्राय वाजि⁴-

POSTSCRIPT.

A PLATE OF DHRUVASENA DATED SAM. 206.

Since writing the above I have come across a new Valabhi plate containing the concluding portion of a grant of Dhruvasēna dated in *sam.* 206, about which I should like to add a few words in continuation of the above note on the Bhavnagar plates. This new plate was placed in my hands for decipherment by Mr. J. C. Chatterjee, Dharmādhyaksha (Secretary in the Ecclesiastical Department) to the Government of His Highness the Gaikwar of Baroda. It was sent to him, he told me, officially from Kathiawad for decipherment: that is all that I could elicit from him regarding its previous history. The plate is 11½ inches long by 6½ inches broad; the edges are raised to protect the writing, which is in a state of perfect preservation; and the characters belong to the period to which the plate refers itself: in one word, the grant is similar in every respect to the records of the Valabhi kings that have hitherto come to light.

¹ From the original plate, and a set of estampages.

² Up to this the text is practically identical with the text of the Pālitānā Plate of Dhruvasēna I. (dated 206), published above, Vol. XI, pp. 105 ff. In l. 6, read °*t-pād-ābhīpraṇāma*° for °*t-pābhīpraṇāma*°; and *Manvādina* for °*dina*°.

³ Read °सिन्धि°.

⁴ The rest of the inscription is missing

The inscription is one of *Mahārāja Dhruvasēna* [I.] and records the grant of a village (of which the name must have occurred in the missing portion of the grant and is therefore now lost) to a Brāhmaṇa named *Rotghamitra* of the *Vrajaṅga gōtra*, a student of the *Chhandōga* School, and resident of *Sinhapura*, for the maintenance of certain sacrifices. The grant is dated *sam. 200 6, Āsvina śukla 3*. The *samvat* year, when referred to the *Valabhi* era, yields A.D. (206 + 319) 525. The *dātaka* was *Mammaka*, and the writer *Kikkaka*, as usual.

The only point worthy of notice in this grant is the village-name *Sinhapura*, which is mentioned in it as the residence of the grantee. It is tempting to identify it with *Sihōr* in the east of the *Kathiawad* peninsula, a junction on the *Bhavanagar-Wadhwan* Railway, not far from *Valā*, the ancient *Valabhi*.

[KATHIAWAD PLATE OF DHRUVASENA [I.]

TEXT.¹

- 1 rṇṇava-kshiti-sarit-parvvata-sthiti-samakālinam putra-pantr-ānvaya-bhōjyam bali-
- 2 charu-vaiśvadēv-ādyānām kriyānām samutsarppan-ārttham *Sinhapura-vāstavya-*
brāhmaṇa-*Rōtghamitrāya*
- 3 *Vrajaṅga-sa-gōtrāya* (Ch)*Chhandōga-sa-brahmachāriṇē* brahma-dāyam nisṛiṣṭam
[|*] yatō=sy=ōchitayā brahma-
- 4 dēya-sthityā bhūmjataḥ kṛishataḥ pradīśataḥ=karshāpayataś=cha na kaiś=chit=svalp-
āpy=ābādḥā vichāraṇā vā
- 5 kāryy=āsmad-vamśajair=āgurnmi²-nṛipatibhiś=ch=ānityāny=aiśvairyāny=asthiram mānu-
shyam ch=āvōkshya sāmānyam cha
- 6 bhūmi-dāna-phalam=avagachchadbhir=ayam=asmad-dāyō=numantavyō yaś=ch=āchchhin-
dyād=āchchhidyamānam v=ānumōdēt
- 7 sa pañchabhir=mmahā-pātakais=ṣ-opapātakais=samyuktas=syād=api ch=ātra *Vyāsa-gītan*
ślokaḥ
- 8 bhavataḥ [|*] shashtim[*] varsha-sahasrāpi svarggō mōdati bhūmidatḥ[|*] āchchheittā
ch=ānumantā cha tāny=ōva narakō
- 9 vasēt [|*] sva-dattām para-dattā[m*]=vvā yō harēta vasundharām [|*] gavām
śata-sahasrasya hantu[h*] prāpnōti
- 10 kilbisham[||*]=iti sva-hastō mama mahārāja-*Dhruvasēnasya* [|*] dātakaḥ
prathāra-*Mammakaḥ* [|*]
- 11 likhitam *Kikkakena* [|*] *sam 200 6 Āsvayuja śu 3* [|*]

No. 8.—SRIRANGAM COPPER-PLATE GRANT OF DEVARAYA II; SAKA 1349 (1350).

By THE LATE T. A. GOPINATHA RAO, M.A., TRIVANDRUM.

The temple of Śrī-Raṅganātha at Śrīraṅgam possesses, among others, two sets of copper-plates belonging to the reign of the Vijayanagara king Dēvarāya II. The inscriptions engraved upon these two sets are edited below from the impressions prepared under my supervision.

No. I. SAKA-SAMVAT 1349.

This set consists of three plates (size $10\frac{3}{4} \times 6\frac{1}{2}$ in.), of which the first and the third bear writing on one face only, namely, the second side of the first and the first side of the third.

¹ From the original plate and a set of impressions.

² [Read *āgami*.—Ed.]

The inscription is in good state of preservation. The alphabet in which the record is written is **Nandināgarī**, and the language partly **Saṅskṛit** and partly **Kannāḍa**. The first section covers 41, and the second 34 lines, and the remaining portion contains the usual admonitory and imprecatory verses. At the end appears, as is usual with the documents of the kings of the first dynasty of Vijayanagara, the word *Śrī-Virūpākṣa*, the sign-manual of the king, written in the Telugu-Kannāḍa alphabet. The same sort of mistake, careless execution of the engraving, leaving room for a number of corrections, erasures, interlineations, etc., and other faults common to the other grants of this period are to be found in these two sets of copper-plates also; there is no necessity for them to be noticed in detail here; they are noted in the foot-notes at the appropriate places.

The record is dated **Śaka 1349**, which is expressed by the **chronogram dhivalōka**; this year corresponded to the cyclic year **Plavaṅga**. In the Kannāḍa portion the Śaka year is given as 1350, and the same Plavaṅga is said to be current. On a **Sunday**, which was the **Uṭthāna-dvādaśī tithi** in the bright half of the month **Kārttika**, the king **Dēva-Rāya II** granted to the God **Raṅganātha** of **Śrīraṅgam** the village of **Pāṇḍamaṅgalam** together with the sub-villages, **Tirunalūr**, **Sēraṇaibaṇḍa-perumā-nallūr**, and **Sunepuha-nalūr**, in the name and for the merit of his mother **Nārāyaṇāmbikā**. The genealogy of the king is traced thus :—

Saṅgama
|
His middle son
Bukka I
md. Gaurāmbikā
|
Harīharāśvara
|
Pratāpa-dēva-Rāya I
md. Dēmāmbikā
|
Vijaya-Bhūpati
md. Nārāyaṇāmbikā
|
Dēva-Rāya II

Dēva-Rāya II bears the *birudas*, *Rāj-ādhirāja*, *Rāja-param-śvara*, *Bhāṣh-ātīlaṅghi-bhūpāla-bhujāṅga* (= *Bhāṣhege-tuppuru-rāyara-gaṇḍa*), *Mūru-rāyara-gaṇḍa* and *Hindu-rāya-suratrāṇa*. Having ascended his ancestral throne and while protecting the kingdom, residing in his capital **Vijayanagara**, which is situated on the bank of the river **Tuṅgabhadra**, king Dēva-Rāya made the grant mentioned above in the presence of the god **Virūpākṣa** on the bank of the Tuṅgabhadra. The villages **Pāṇḍamaṅgalam**, **Tirunalūr** and **Sēraṇaibaṇḍa-perumā-nallūr** are said to have been situated in the **Rājagambhira vaḷaṇḍu** on the south side of the river **Kāvērī**; and **Sunepuha-nalūr** in the **Mēlmurī** of the **Maḷa nāḍu**, a sub-division of the **Rājarāja vaḷaṇḍu**, on the north of the same river. The Kannāḍa portion adds that the villages belonged to the **Amarada hōbaḷi**. All of them belonged also to the **Tiruchchirappalli rājya** or **chāvaḍi**. The purpose for which the grant is made is given in full detail in the Kannāḍa portion. From the income of the villages twelve perpetual lamps should be burned, flower-garlands dedicated and one festival celebrated. The grant was made as an auxiliary to the *Gō-sahasra Mahādāna* performed by the king. The grant was ordered to be executed from the first *tithi* of the bright fortnight of the month **Āṣāḍha**. The income from the villages situated on the south of the Kāvērī was 1403 coins (*kuḷa-gadyāṇa*), and that from the village on the north of the river 420; total 1,823

gadyānas. A number of taxes leviable in these villages are included in the grant: they are taxes on the *naṇṣey*, *puṇṣey*, *pūm-payir*, *vāṣal*- and *maṇai-ppēru-kaḍamai*, *tari-kkaḍamai*, *māvaḍai*, *maravaḍai*, *kuḷavaḍai*, *kalāyam*, *tirigai-āyam*, *pēr-kaḍamai* (*tari-kaḍamai*), *āḷukku-nir-pāṭṭam*, *mahamai*, *kaṭṭigai-avasaram*, *paṭai-kāṇikkai*, *Āḍi-Kārttigai-pachchai*, and all old and new taxes. Several of these have remained unexplained up till now. It is easy to understand the nature of the first four; they are levied on wet and dry cultivation, on inferior crops, on houses and compounds and on looms; *māvaḍai*, *maravaḍai* and *kuḷavaḍai* are taxes on animals, trees and tanks: that is, perhaps, when animals are sold in markets; on fruit-bearing trees and for fishing in tanks. *Kalāyam* literally means tax on stone; it is very likely a tax payable for quarrying stones from hills; what tax is meant by *tirigai-āyam* is not known. *Pēr-kaḍamai* means taxes on persons, a sort of poll-tax evidently. *Āḷukku-nir-pāṭṭam* is a tax for maintaining the person appointed for making regular supply of water to the fields: this appears to be the same as *nirāṇikkam*. *Magamai* is a corrupt form of *magaṇmai*, the nature of being a son to another; this levy is still in force among certain merchants in the Tanjore and Trichinopoly districts. On all sales and purchases the merchants collect a small, but fixed, sum and utilize the money thus collected for some public purpose. Compare similar words, as *kōyīṇmai* corrupted into *kōyma*, *ārāṇma*, etc. *Kaṭṭigai-avasaram* appears to be some sort of tax on fire-wood; and *paṭai* (*paḍai*)-*kāṇikkai* is the contribution to be made for the maintenance of the army. *Pachchai* means a *kāṇikkai*, a *nazar*, a present on important occasions. In this sense the word is employed in contemporary literature; for instance, in *Śrī-vachana-bhūṣaṇam*, I, 33 and 34. Such *kāṇikkais* seem to be given in the months of *Āḍi* and *Kārttigai*.

The following places and rivers are mentioned in the inscription:—*Tuṅgabhadra*, *Vijayanagara*, *Tiruchohirāppaḷi*, *Kāvēri*, *Rājagambhira vaḷanāḍu*, *Pāṇḍa-maṅgalam*, *Tirunalūr*, *Śēraṇaibāṇḍa-perumā-nallūr*, *Rājarāja vaḷanāḍu*, *Mēlmurī* of the *Maḷa nāḍu* and *Śunepuha-nalūr*. Of these the *Tuṅgabhadra* and the *Kāvēri* are the well-known rivers of South India. *Tiruchohirāppaḷi* is the modern town of Trichinopoly, the head-quarters of the district of the same name. The part of the country immediately to the south of the river *Kāvēri* was known to medieval inscriptions as the *Rājagambhira vaḷanāḍu*, and that on the north of the same as the *Rājarāja vaḷanāḍu*. *Maḷa nāḍu* is a sub-division of this territory and has given its name to a section of the Tamil Brāhmaṇas, i.e. the *Brihach-charaṇa* community of *Maḷa nāḍu*. *Vijayanagara*, the capital of the famous Hindu kings of Southern India, is the modern *Hampe* on the *Tuṅgabhadra*. *Pāṇḍa-maṅgalam* is a village a mile and a half west of Trichinopoly; this and *Tirunalūr* are in the Trichinopoly *Tālūk*; the correct form of the name *Śēraṇaibāṇḍa-perumā-nallūr* is *Śēraṇai-veṇṇa-perumāḷ-nallūr*. There is a village some distance south of *Pāṇḍa-maṅgalam* called *Vēndarāya-nallūr*. This is perhaps the same. *Śunepuha-nalūr* is situated at a distance of seven and a half miles to the north-west of Trichinopoly.

TEXT.¹

[Metres: vv. 1-25, *Anuṣṭubh*, and v. 26, *Śalinī*.]

First Plate: Second Side.

- 1 श्रीगणाधिपतये नमः [॥*] नमः(ः)स्ते [॥*] नमः(ः)स्ते [॥*] नमः(ः)स्तुगसि
- 2 रघुबि²चंद्रचाम[र*][चा]रवे [।*] चैलीकनगरारंभमूल-

¹ From impressions prepared under my supervision.

² Read °रुघुबि. रुजि.

- 3 स्तंभाय संभवे¹ (तु) ।[1*] भू[य*]² भवतां भूतै³ भूयादाच्छयं⁴
 4 कंजरः[1*] आहुर्विहारकांतार अ[1*]⁵गमाव्यस्य [यो]-
 5 गिनः ।[2*] क्षेमं वः प्रसुरीकुर्यात्क्षोणीमभ्युद्वहनयं⁶[1*] [क्रो]-
 6 डाकतेरभूव्यस्य क्रीडापस्व[ल]मंक्षुधि⁷[:॥ 3*] अस्ति क्षोरा[र्ण]-
 7 वोद्भूतमपां पु[ष्य]मनुत्तमं⁸ । अन्तानदं निर्माव्यमाध-⁹
 8 ते शिरसीश्वरः [॥ 4*] सदामोदनिधेस्तस्य संतानेयद्र[सं]-¹⁰
 9 [क्षि]ते [1*] अभूदाच्छयम[1]धुर्यं वसुधायास्तपःफलं [॥ 5*]
 10 संगमो नाम रा[जा]भू[त्वा]रभूते तदन्वये [1*] रेजे यस्य
 11 यशःशिंधौ¹¹ सर[णी]व सुरापगा [॥ 6*] सर्वरत्ननिधि]-
 12 स्तस्य संस्त्राडासीत्तनूभव¹² । मच्छे बुक्कमहोपालो म-
 13 णोनामिव कौस्तुभः [॥ 7*] तस्य गोरांबिकाजानेस्त(नयो वि)-
 14 नयोभूजुणे¹³वतः [1*] [हा]रगौरयशःपु¹⁴रहारिहरिह[रे]-
 15 श्वरः [॥ 8*] ¹⁵यषोडशमहादानयशसां दिग्विहारिणां [1*] भूय[सा]-
 16 मभवंनालं¹⁶ भुवनानि चतुर्दश [॥ 9*] प्रतापदेवरायाव्यः
 17 पुत्रोभू[द्भू]¹⁷वि विश्रुतः [1*] प्रमोद इव मूर्त्ति यः प्रजानां स्वैर्ग-
 18 णैर[भु]¹⁸त् [॥ 10*] प्रत्य[र्थि]समिधो हृत्वा प्रतापाग्नी रणांकणे [1*]¹⁹
 19 विजितो येन(।) वीरेण विजयश्रीकरग्रहः [॥ 11*] तस्य दे-
 20 मांबिकाजानेस्तनयो विनयोक्तः [1*] विद्यानिधि-
 21 विशेषज्ञो वीरो विजयभूपतिः [॥ 12*] दयानिधेर[भू]-
 22 तस्य देवीनारायणांबिका [1*] शीरेरिव महालक्ष्मीः शं-
 23 [क]रस्येव पार्वती [॥ 13*] पुत्ररूपं तयो [1*] स्नायं पु²⁰र्वजन्म त-

Second Plate : First Side.

- 24 पःफलं [1*] देवरायमहोपालो दाता दीव्यति भूतले [॥ 14*]
 25 विक्रमे विक्रम[1*]दित्यं भोगे भोजमिवापरं [1*] राजराजं वि-

¹ Read शं.

⁴ Read °दाच्छयं.

⁷ Read °मक्षुधिः

¹⁰ Read सन्तानं यदुत्तमं.

¹³ Read णो.

¹⁶ Read °वज्रालं.

¹⁹ Read रणांकणे.

² Read भूयस्ये.

⁵ Read कान्तारमा°.

⁸ Read °मक्ष.

¹¹ Read यशः शिंधोः

¹⁴ Read पु.

¹⁷ Read °हु.

²⁰ Read पु.

³ Read भूतै.

⁶ Read °द्वहनयं.

⁹ Read अन्तान यदनिर्माव्य°.

¹² Read सन्त्राडासीत्तनूभवान्.

¹⁵ Read यषोडश°.

¹⁸ Read °भू.

- 26 तरणे राजानं यं प्रचक्षते [॥ 16*] अभंगमंगकाळिङ्गमंगगाद्या-
 27 सामरादिभिः [1*] रत्नानो यं निषेवते¹ राजपिन्हेः स्वयं[६]-
 28 तैः [॥ 16*] राजाधिराजः² स्तेजस्वी यो राजपरमे[३]रः [1*] भाषाति-
 29 लङ्घिभूपालभुजंगवि[६]दीनतः³ [॥ 17*] म्भूरायस्मडाकः⁴
 30 परराजभयंकरः [1*] चिंदुराय[सु]रचाणो⁵ मंदिवर्गेण वं-⁶
 31 र्ण्यते [॥ 18*] श्रीतुंगभद्रापरिषे नगरे विजयाज्ञये [1*] प्रियं
 32 सिंहासनं प्राप्य पालयन्[६]विनीतिमां [॥ 19*] पुण्य⁷से[1*]ना-
 33 ग्रं[६]सी देवरायमहीपतिः[1*] धिवलीकी सकथा-⁸
 34 [६] म्भुवंग[६]यवच्छ⁹ [॥ 20*] क[1]र्तिके मासि सुभाषा¹¹ दाद[६]या-
 35 मार्कवासये¹² [1*] तुंगभद्रानदीतो[६] श्रीविरूपाक्षसंनि-
 36 [६] [॥ 21*] चि[६]रापन्निरा[६] राजगंभीरवल्लभिदे¹³ कावेरिय-
 37 दक्षिणे पाडमंगलया[म*] [६] सुभौ तिरुनलूरपि¹⁴ सेरनैवड-
 38 पेरुमानलूरपि उत्तरेयाक्षकन्याय¹⁵ राजराजवल्लभि-
 39 धे प्रवृजपदे सुनेपुङ्गनलूरधा उभौ श्रीरंगराजय परि-
 40 यार्थं¹⁶ नारायणवभिध[1*]नतः सेनैव¹⁷ देवराजेन दत्तं श्रीव-
 41 नाधुधारया¹⁸ ॥ स्वस्ति श्री जयाधुदाय शिववर्ष¹⁹ ११५० म्भ-
 42 गसंवच्छ²⁰रद कार्तिकसुध उत्तामुह[1*]दसि²¹पुण्यकालद
 43 श्रीम²²महाराजाधिराजपरमेस्वर श्रीवीरप्रतापदे-
 44 वरायमहारायक श्रीरंगनाथदेवरिगी नारायणदेवी-
 45 से[1*]वगल हेसरजि श्रीदु अपसरव नडसुव चक्षु²⁴ दिन
 46 [६]दके²⁵ हजेरडु परिवाणनंदादीविगिवनमाली श्री-

Second Plate: Second Side.

- 47 दु तिरुनालु न(१)डुदके²⁶ कोट्ट दर्ममात्तन²⁶ [1*] उत्तामह²¹[१]-

¹ Read निषेवते.

² Read चिन्दु.

³ Read पुण्य.

⁴ Read स्त.

⁵ Read राजनश्रीरत्नानिधकावेरी.

⁶ Read श्रीरंगराजय-परिचयार्थं.

⁷ Read जयाधुदयवक्त.

⁸ Read न.

⁹ Read चान्दके

¹⁰ Read भुजंगविन्दोन्नतः.

¹¹ Read-व.

¹² Read गच्छीदी.

¹³ Read सुभाषा.

¹⁴ Read पाडमंगलया-सुभौ.

¹⁵ Read नारायणवभिधमताः सेनैव.

¹⁶ Read स्त.

¹⁷ Read व.

¹⁸ Read धर्म.

¹⁹ Read म्भुवंग.

²⁰ Read म्भु.

²¹ Read म्भुवंगदे.

²² Read द.

²³ Read सुभाषाया.

²⁴ Read चक्षुधुधारया.

²⁵ Read उत्तामहदमी.

²⁶ Read चक्षु.

२ ४ ६ ८ १० १२ १४ १६ १८ २० २२
 १ २ ३ ४ ५ ६ ७ ८ ९ १० ११ १२ १३ १४ १५ १६ १७ १८ १९ २० २१ २२ २३ २४ २५ २६ २७ २८ २९ ३० ३१ ३२ ३३ ३४ ३५ ३६ ३७ ३८ ३९ ४० ४१ ४२ ४३ ४४ ४५ ४६ ४७ ४८ ४९ ५० ५१ ५२ ५३ ५४ ५५ ५६ ५७ ५८ ५९ ६० ६१ ६२ ६३ ६४ ६५ ६६ ६७ ६८ ६९ ७० ७१ ७२ ७३ ७४ ७५ ७६ ७७ ७८ ७९ ८० ८१ ८२ ८३ ८४ ८५ ८६ ८७ ८८ ८९ ९० ९१ ९२ ९३ ९४ ९५ ९६ ९७ ९८ ९९ १००

२४ पञ्चालैरेवनायमहीपान्नादाताही वृत्तिनुत
 २६ विष्णुमेविविष्णुमदितं नोगोत्तिष्ठाम् तावचसोऽमुनामि
 २८ तज्जगामासात्तयपुनरतेमनगमैर्यमान्निभद्वयाय
 २८ रवालसाहेनृणासा तोयत्तिषेतेतज्जाम्निहेनृदय
 ३० तैरेवास्त्रादिनामुहेनृद्वेदीयातास्यचमोवतपुनियति
 ३० तद्विष्णुपान्त्वनुक्रमानुपरोचततस्तुतायुगस्य
 ३२ पात्रेनयययुगस्यहेतुसायनचजागतेकृत
 ३४ तैरेवास्त्रादिनामुहेनृद्वेदीयातास्यचमोवतपुनियति
 ३४ तद्विष्णुपान्त्वनुक्रमानुपरोचततस्तुतायुगस्य
 ३६ पात्रेनयययुगस्यहेतुसायनचजागतेकृत
 ३८ तैरेवास्त्रादिनामुहेनृद्वेदीयातास्यचमोवतपुनियति
 ४० तद्विष्णुपान्त्वनुक्रमानुपरोचततस्तुतायुगस्य
 ४२ पात्रेनयययुगस्यहेतुसायनचजागतेकृत
 ४४ तैरेवास्त्रादिनामुहेनृद्वेदीयातास्यचमोवतपुनियति
 ४६ तद्विष्णुपान्त्वनुक्रमानुपरोचततस्तुतायुगस्य

४८ दप्रितानुत्तरु ३ ॥ ६ ॥ मरासन्तानद्व
 ४८ इतोवाप्राथालरुत्तुगनद्रात्रीनरलितोवितुव
 ५० कसंक्षिपिदक्षिनाडुकादिदत्तसखीरानागव
 ५० गिराचुवापदवचिभमगनगनोमभिमि
 ५२ पठितोमसवक्तुनदभासादस्यपाडाभाचम
 ५२ क्वातिविषवपक्षिवावद्विपनामनीम
 ५४ क्वाडभमनदनीनलियपोडगजलदभाभी
 ५४ दनलरुत्तुगिननालुनभाभीननेनडुप
 ५६ मानेनलुनभाभीमनविद्वक्तुसखा
 ५६ केकुलनलुत्तुवक्तुनभाभीमभमना
 ५८ उमलनलुत्तुमलमुनियसुनैपुनलुनभा
 ५८ मभंनकेकुलनलुत्तुनयगामयन
 ६० ककुलनलुत्तुभाभीमनलुत्तुवक्तु
 ६० ननवतुसीमभासलुवदकेपुत्रेवा
 ६२ नपयितुवक्तुनभाभीमलुत्तुवक्तु
 ६२ उमननिकुलनभाभीमलुत्तुवक्तु
 ६४ ककुलनलुत्तुमलायनितोभाभीम
 ६४ ककुलनलुत्तुनिकुलनभाभीमलुत्तुवक्तु
 ६६ ककुलनलुत्तुनिकुलनभाभीमलुत्तुवक्तु
 ६६ ककुलनलुत्तुनिकुलनभाभीमलुत्तुवक्तु

६८ चिकुंगादसकलसुवक्षीधायसकलनगो
 ७० दायनियनिकपुनलपाभागादिमिभागादि
 ७० सिदुसाथकुंगादमपुनोगतोमहाभसभिन
 ७२ गिमाचद्राकलाधियागिसवभात्मवागिसभिमि
 ७४ कोटवागिराचुवालावदवचिभमगनगनो
 ७४ गमलनपठियनलुत्तुसिदुकादिमननलुत्तु
 ७४ वदु॥ दानपालकपार्थक्यप्रदानाकेपातुपालन
 ७६ द्वावर्तुमभाभीमिभाननाददुनैपदभावा
 ७६ चिकुंगादसकलनलुत्तुवक्तुनभाभीमलुत्तु
 ७८ गिराचुवापदवचिभमगनगनोमभिमि
 ७८ ककुलनलुत्तुमलमुनियसुनैपुनलुनभा
 ८० उमलनलुत्तुमलमुनियसुनैपुनलुनभा
 ८० मभंनकेकुलनलुत्तुनयगामयन
 ८२ ककुलनलुत्तुभाभीमनलुत्तुवक्तु
 ८२ ननवतुसीमभासलुवदकेपुत्रेवा

ॐ नमो भगवते वासुदेवाय

- 48 'दसोपुंष्य'काण्डदलु तंगभद्रातीरदलि श्रीविष्णुप[1]-
 49 असंनिधियज्ञि नाज² माडिद सङ्गगीदानागव[1]³
 50 मि श्रीरंगनाथदेवरिगे चंगरंगभोग चमिरितु-
 51 पडिगे तसकच्छरद चासाड सुय पाण्य⁴ चारभ्य-
 52 वागि चिरिप्र⁵पक्षिवावडिय राजगंभीर चीळ
 53 नाड चमरदहीभलिय पांडमंगलद ग्राम १ इ-
 54 दरलुहलि तिरनालूर ग्राम १ सेरनेभंडपेस-
 55 मालीनलूर⁶ ग्राम १ चतु⁷ पिडाकीसङ्ग ग्राम चींद-
 56 के कुल १४०३ [1*] वडकर⁸ राजराजवळना-
 57 ड मलनाड मेलेसुरिय सुनेपुङ्गनलूर गा-
 58 म चींदके⁹ कुल ४२० [1*] उभय(:)ग्रामयेरड-
 59 कां कुळगव[1*]ण १८२३ [1*] कंदग्राम एर-
 60 डर चतुसीमेमे सलुव नचे¹⁰ पुंघे वा-
 61 नूपयिर पुंघीर वांसलुमनेपेरक-
 62 डमे¹¹ तरिकडमी¹² मावडे मरवडे
 63 कुळवडे कसायं तिरिगे¹³ आयं पे-
 64 कडमे¹⁴ तरिकडमे चोलुकुनीपा-
 65 ट मङ्गमे कठिगेभवसर पटे-¹⁵
 66 काणिके आडिकातिकी(1)पचे म-
 67 तु¹⁶ एनुजंता होसवरि¹⁷ हलिव-

Third Plate: First Side.

- 68 रि मुंताद सकल सुवर्नादाय सकलभता-¹⁸
 69 दाय निधिनिलेपजलपाषाण चक्षिणि आगामि
 70 सिद्धसाध्य मुंताद अष्टभोगतिज[:*]स्वाम्यस[चि]तव[1]-
 71 गिमाचंद्रार्क स्ता¹⁹यियागि सर्वमान्यवागि सेरिसि
 72 कोटेवागि श्रीरंगनाथदेवरिगे चंगरंगभो-
 73 नू असुतपडियनु नडसि सुकदिं अनुभविसु-
 74 वडु ॥ दानपासनयोर्मध्ये²⁰ दानाच्छेयोनुपासनं [1*] दा-

¹ Read पुंष्य.

² Read तसकच्छरद चासाडयच पायमे.

³ Read चतु.

⁴ Read पुनपयिर वांसलुमनेपेरकडमे.

⁵ Read चेकडमे. This and tari-kaḍamat are repeated unnecessarily.

⁶ Read काणिके पच मनु.

⁷ Read स्ता.

⁸ Read नाज.

⁹ Read तिरचिरायलि.

¹⁰ Read वडकरे.

¹¹ Read कडमे.

¹² Read होसवरि.

¹³ The letter न in पासन looks like व.

¹⁴ Read माङ्गवागि.

¹⁵ Read सेरनेवेनुरपेसमाळ नडु र.

¹⁶ Read चान्दके.

¹⁷ Read डे.

¹⁸ Read ता.

75. नात्स्वर्गमवाप्नोति पालनादनु¹तं पदं ॥ [22*] स्वदत्तां [प]-
 76 रदत्ता² वा यो हरित वसुंधरा[म् ।*] षष्टिवर्षसह[त्रा]-³
 77 णि विष्टा⁴यां जायते क्रिमिः⁵ ॥ [28*] एकैव भगिनी लोके स-
 78 वैषामेव भूभुजां [।*] न भोग्या न करग्राह्या विप्रद-
 79 ता वसुंधरा ॥[24*] स्वदत्ताहि⁶गुणं पुण्यं परदत्तानुपाल-
 80 नं [।*] परदत्तापदारेण⁷ स्वदत्तं निष्फलं भवेत् ॥[25*] सामान्यो-
 81 यं धर्मसेतु नृपाणां काले काले पालनीयो भवद्भिः । सर्वा-
 82 नियतानु¹⁰न्नाविनः[।*] पार्थिवेद्रान् भुयो भुयो¹¹ याचते रामचंद्रः[॥26*]
 83 श्रीविरूपाक्ष¹²

ABSTRACT OF CONTENTS.

Verso 1. Adoration to Śambhu (Śiva).

V. 2. Adoration to Gaṇeśa.

V. 3. Adoration to Varāha.

Vv. 4-5. On earth, as the fruit of its *tapas*, was born Yadu in the family of the Moon, which came out of the ocean of milk and is worn by Śiva on his head.

Vv. 6-7. In his race was born a king named Saṅgama. His middle son was Bukka, who resembled the jewel *kaustabha* among other jewels.

Vv. 8-9. To him by Gaurāmbikā was born a son, named Harihara, who was gentle and famous. The renown of his making the sixteen great gifts (*mahādāna*) redounded even beyond the fourteen worlds.

Vv. 10-12. His son was Pratāpa-dēva-Rāya, who appeared the embodiment of the happiness of his subjects. He conquered his enemies in battles by the prowess of his arms and obtained the favour of Vijaya-Lakshmi (goddess of Victory). To him, as husband of Dēmāmbikā, was born the prince Vijaya-Bhūpati.

Vv. 13-18. The queen of Vijaya-Bhūpati was Nārāyaṇāmbikā. As the fruit of the meritorious acts done by them in their previous birth, Dēva-Rāya was born to Vijaya-Bhūpati and Nārāyaṇāmbikā and distinguished himself on earth. He is compared to Vikramāditya in valour, to Bhōja in his *bhōga* (?) and to Rāja-rāja (i.e. Kubēra) in his munificence. The kings of the Aṅga, Kalinga, Vaṅga, etc., countries did homage to this king, holding *chāmara*s and other royal insignia in their hands. He bore the *birudas* Rāj-ādhirāja, Rāja-param-śvara, Bhāsh-ātīlaṅghi-bhūpāla-bhujāṅga, Māru-rāyara-gaṇḍa, Para-rāja-bhayaṅkara and Hindu-rāya-suratrāpa.

V. 19 to the end of line 41. Dēva-Rāya, who, seated on his ancestral throne in Vijayanagara, which has the Tuṅgabhadra as its ditch, ruled the earth, made the grant of the villages of Pāṇḍa-maṅgalam, Tirunālūr, Śēranaibāṇḍa-perumā-nālūr and Śunepaha-nālūr to the god Raṅganātha. The gift was made in the Śaka year 1349, which is given by the chronogram *dhivalōka* and which corresponded to the (cyclic) year Plavaṅga, on a Monday

¹ Read अनु.

⁴ Read हा.

⁷ [Read °हारेण—Ed.]

¹⁰ Read °नेतान् भाविनः

¹² This line is written in Telugu-Kannada characters.

² Rep 1 दत्ता.

⁵ Read क्रमिः

⁶ Read °पदारेण स्वदत्तं.

¹¹ Read भूयी भूयी.

³ Read षष्टि° हजाभि.

⁶ Read °हि.

⁸ Read नृ.

the twelfth *tithi* of the bright fortnight in the month **Kārttika**, in the presence of the god **Virūpāksha** on the bank of the river **Tuṅgabhadra**. The villages **Pāṇḍa-maṅgalam**, **Tirunālūr** and **Sēraṇaibaṇḍa-perumā-nalūr** are said to have been situated on the south bank of the river **Kāvēri**, in the **Rājagambhira vaḷaṇḍu**, belonging to the **Trisīrāppalli rājya**, and **Sunaipuhā-nalūr** in the **Rājarāja vaḷaṇḍu** of the same *rājya*, but situated on the northern bank of the **Kāvēri**.

Lines 41-74. In the **Śaka year 1350**, **Plavaṅga**, on the auspicious occasion of the **Utthāna-dvādaśī** in the bright half of the month **Kārttika**, the king **Vira-Pratāpa-deva-Rāya Mahārāya** gave the following *śāsana* (order) for performing one *avasara* consisting of twelve *harivāṇas* of perpetual lamps, garlands and one festival every day to the god **Raṅganātha** in the name of **Nārāyaṇadēvi-auva** : the gift of the villages of **Pāṇḍa-maṅgalam**, **Tirunālūr** and **Sēraṇaibaṇḍa-perumā-nalūr**, yielding 1,403 *kuḷa-gadyāṇas*, and **Sunepuha-nalūr**, yielding 420 *kuḷa-gadyāṇas*, was made for the *aṅga*, *raṅga*, etc., of the god **Śrī-Raṅganātha**, as an auxiliary to the *gō-sahasra mahādāna* made by the king on the auspicious occasion of **Utthāna-dvādaśī** in the presence of the god **Virūpāksha** on the bank of the river **Tuṅgabhadra**. The villages **Pāṇḍa-maṅgalam**, **Tirunālūr** and **Sēraṇaibaṇḍa-perumā-nalūr** were in **Amarada kōbaḷi** of the **Rajagambhira vaḷaṇḍu** in the **Chirichrāpalli chāvaḍi**, whereas **Sunepuhā-nalūr** was situated in the **Mēlamurī** of the **Maḷa nāḍu**, a sub-division of the **Rājarāja vaḷaṇḍu** in **Vaḍagarai** (northern bank of the **Kāvēri**). These villages were to be enjoyed from the first *tithi* of the bright fortnight of the month **Āshāḍha** of the same year. The king granted these villages with the following rights of enjoyment : namely, the taxes on the lands under wet and dry cultivation, as also *vāṇ-payir* and *puṇ-payir*, the taxes called *thev āsal*-, *maṇai-pēru-kaḍamai*, *taṟikka-ḍamai*, *māvaḍai*, *maravaḍai*, *kuḷavaḍai*, *kal-āyam*, *tirigui-āyam*, *pēr-kkaḍamai*, *taṟikkaḍamai*, *aḷkunipāṭṭam*, *mahamai*, *kaṭṭige-avasara*, *paḍai-kānikkai*, *Āḍi-Kārttigai-pachchai* and all other new and old taxes, all income in gold and paddy and the eight kinds of enjoyment, *nidhi*, *nikshēpa*, etc.

Vv. 22-26. The usual admonitory and imprecatory verses.

Line 83 contains the words **Śrī-Virūpāksha**, the king's signature.

No. 9.—MOMIGATTI INSCRIPTION OF THE 49TH YEAR OF VIKRAMADITYA VI.

By LIONEL D. BARNETT.

Momigatti is a village in **Dhārwar District**, a few miles to the north-west of **Dhārwar town**, in lat. $15^{\circ} 30\frac{1}{2}'$ and long. $74^{\circ} 59'$, according to the **Bombay Survey**.¹ The present inscription, now published for the first time, was found in the local temple of **Kalamēśvara**, on the left side of the image. An ink-impression was prepared for the late **Dr. Fleet**, which is now in the **British Museum** ; from it I have edited the text. The stone has a rounded top decorated with sculptures, namely, in the centre a *linga*, on the proper right of which is a priest standing facing it, while another upright figure stands to the proper left, all three being in a shrine ; to the proper right of the priest, a cow and calf ; to the right of the latter, a scimitar ; in the opposite corner, a bull ; above these, the sun (on proper right) and moon (on left). Below this is the inscribed area, in two compartments : the first of these, comprising lines 1-2, is 2 ft. $3\frac{1}{2}$ in. wide and $2\frac{1}{2}$ in. high, and the second, containing lines 3-30, is of the same width and 2 ft. 9 in. high.—The character is good **Kanarese**, of an upright rounded type that was beginning to come into use about the middle of the twelfth century. The height of the letters varies from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. The *jh* (l. 9) and *z* (ll. 19, 26) may be noted.—The language is Old **Kanarese**, with two

¹ The "Moomeeguttee" of the **Indian Atlas** seems to be intended for **Momigatti** ; but its position does not quite tally with that of the latter as given in the **Survey**.

formal Sanskrit verses (Nos. 1 and 5). The ancient *ḷ* has been changed to *ḷ* in *kūḷam* (l. 14), *bēḷpa* (l. 16), *uḷḍavarggey* = (l. 27), *ḷ-kōṭi* (l. 28), and to *r* in *garḍḍey*[u*]*maṇ* (l. 22); it is falsely used for *r* in *toḍaḷa* = (l. 16). *P* is changed to *h* in *haḷḷi*° (ll. 19, 20), but elsewhere retained. Three words are of some lexical interest, viz. *tyāga-jaga-jhampī jhampāśchāryya* (l. 9), on which see above, Vol. XII, p. 251, and *nṛita* (l. 14), which is abstracted from the ordinary *sūnṛita*, and is parallel to *anṛitika*, "untruthful" in Aśvaghōsha's *Buddha-charita*, II. ii.



The record, after referring itself in ll. 2-4 to the reign of Tribhuvanamalla (Vikramāditya VI), introduces the Kadamba feudatory Jayakēsi [II], who is decorated with the characteristic titles of his dynasty, and his senior queen Maṇḍala-dēvi (the daughter of Vikramāditya VI), as jointly reigning (ll. 4-13). On the historical points involved herein it suffices to refer the reader to Vol. XIV above, p. 299 f. Then follow verses in praise of Vāmaśakti, a Śaiva divine, and Udayamma Gavunḍa (ll. 13-17), after which comes the formal statement of a gift of land and houses by the latter to the sanctuary presided over by Vāmaśakti (ll. 17-24).

The date is given on ll. 17-18 as : the cyclic year Krōdhi, the 49th of the Chālukya Vikrama era ; Āshāḍha śuddha 5 ; Sunday. This is irregular. The given *tithi* was current at sunrise on Wednesday, 18 June, A.D. 1124, and ended about 9 h. 16 m. after mean sunrise.¹

The only places mentioned are Kundūr (l. 19), Eranigereyahaḷḷi (l. 19), Konnasagere (l. 21), and the *tīrtha* (l. 25). Kundūr is the modern Narēndra, on which see above, Vol. XIII, p. 296.






TEXT.²

[Metres : vv. 1, 5, *Anuṣṭubh* ; vv. 2-4, *Kanda*.]

- 1  Namas=tuṅga-ś[i*]raś-chuṁbi-chandra-chāmara-chāravē [1*] trailōkya-
nagar-āraṁbha-māḷa-stambhāya Sa(śa)mbhavē || [1*]
- 2  Svasti samasta-bhuvan-āśraya Śri-Pri(pri)thvi-vallabha mahārājādhirāja
paramēśvara paramabhaṭṭ[ā]-
- 3 rakam Satyāśraya-kuḷa-tīlakam Chāluky-ābharapam śrīma[t*]-Tribhuvanamalla-
dēvara vijaya-rājyam=u-
- 4 ttarōttar-ābhivṛddhi-pravarddhamānam-ā-chandr-ārka-tāram-baram saluttam-ire ||
© Tat-pāda-padm-ōpajivi || ©' ©
- 5 svasti samasta-bhuvana-samstōyamāna Hara-Dharanī-prasūta-Trīlōhana-Kadamba-
vāṁśa-mah-ōḍa[ya]
- 6 Mahīdharēndhra(dra)-śikhar-ābhyudayamāna-mahā-prachandā-mārttamḍa mārttamḍa-
kar-ātittivra-nija-pratā[pa]-
- 7 vaśīkri(kri)ta-sakaḷa-mahī-maṇḍalan-uttuṅga-simha-lāmochohanam vāṇara-mahā-
dhvajam permmaṭṭi-tūryya-nirghōṣhanam
- 8 ohaturā(ra)śīti-nagar-ādhishtit-āśtāśāś-śēvamēdha-dīkshā-dīkshita-kuḷa-prasūta Hima-
vad-girindra-rumdra-śikhara-
- 9 sthāpita-mahā-śakti-prabhāvam tyāga-jaga-jhampī jhampāśchāryya niśamka-Rāma-
śu(su)bhāṭa-kanaka-nikash-ōpaḷa-

¹ I have to thank Mr. R. Sewell for his kindness in verifying my calculations.

² From the ink-impression.

- 10 śaraṇ-āgata-vajra-prākāra lōk-aika-kalpa-druma saṁkrānti-dhavaḷa mūrtti-Nārāyaṇa
kirtti-mārttaṁḍa
- 11 maṇḍaḷika-lalāṭa-paṭṭa vairi-gharaṭṭa śu(su)bhaṭa-rāja-sikhāmaṇi Kādamba-
chūḍāmaṇ-ity-akhiḷa-nām-āva-
- 12 ḷi-samā(ma)lankṛitar-appa śrīman-mahāmaṇḍaḷēśvaraṁ Jayakēsi-dēvar śrīmat-
piriy-arasi Maḷḷala-ma-
- 13 hādēviyaru sukha-saṁkathā-vinōdadim rājyaṁ-geyyuttam-ire ||  Pasid=ār-
bband-upa bēdidoḍ-osed-a-
- 14 tt-ill-ennad-ikkut-irppare kūḷam vasudhāṭalam=ellam baṁṇisuvinegam Vāmaśakti-
paṁḍita-dēvar || [2*] Nṛita-vākyam vaṁḍi-ja-
- 15 n-āśrita-sura-taru Malla-Gavumḍan=arra(gra)-tāṇṭjam matimantam Hara-bhaktam
kshitiy-olag-Udayamma-Gavu-
- 16 ḍan=uttama-purusha || [3*] Siḍil-annam ripu-nichayam 'toḍaḷ(rd)=eḍeyol bēḷpa
janake sura-taruv-annam kuḍut=e-
- 17 ḍeyol Bāṇana vol Mṛiḍa-bhaktam dharapitaladoḷ=Udayama-Gavumḍa' || [4*] 
Svasti śrīmach-Chāḷukya-
- 18 Vikrama-varshada 49neya Krōdhi-saṁvatsarad-Āshāḍa(ḍha) su(śu)ddha 5
Ādityavāradamḍu śrīman-mahā-pa-
- 19 ṭṭanam Kundūra padinaṇuvar-ggāvumḍugaḷa Pañcha-maṭha-sthānada sannidhiyol-
Eranigereyahalliy-Ā-
- 20 karika(?)² Malla-Gavumḍana magan-Udayama-Gāvumḍam halliyindam paḍuval=
kal-puṁjikey=adaṇim mṭ-
- 21 ḍal=ondu mattar=pparala keyyuman=ūr-umba Konnasagerēya mḍaḍa kōṭiyalu nūṇu
ka-
- 22 mma garddey[u*]mam dēvarim teṁkal=eraḍu maneya nivēśanamumam Kali-dēva-
svāmiya sthān-āchā[ryya Vā]-
- 23 maśakti-paṇḍitargge kāl-garchchi dhārā-pūrvvakam māḍi sarvva-namaśya(sya)-
sarvva-bādhā-parihāram=[āgi]-
- 24 y=Udayama-Gāvumḍam-n-ā-chamdra-sthāyiy-āgi biṭṭa dharmma || I dharmmamam
pratipāli[si]-
- 25 davargge Gaṁge Vārapāśi Kurukshētra Prayāgey-emba puṇya-tirtha-sthānamgaḷol
sāsira kavi[le]-
- 26 ya kōḍum koḷagumam pañcha-ratnadol=kaṭṭisi vēda-pāragar-appa mahā-brāh-
maṇargge dānam-geyda [pha]-
- 27 la I dharmmamam-aḷidavarggey-ā sās[i*]ra kaviley[u*]man-ā vēda-pāragar-appa
mahā-brāhmaṇa[ru]-
- 28 mam eḷ-kōṭi tapōdhanaruman-ā puṇya-tirtha-sthānamgaḷol-konda mahā-pātakan=
akku || 
- 29 Sva-datt[ā*]m para-datt[ā*]m vā yaṁ(yō) harēti(ta) vasumḍharṣ[m*] shashṭir-
virisha-shāsaṇi³ vi-
- 30 shṭa(shṭhā)yām jāyatṣ krimi⁴ [5*]  

¹ The syllable *ma* is metrically superfluous.² Read *varsha-sahasraṇi*.³ Apparently so; but the first *ka* may be read as *ra* or *ga*.⁴ Read *krimiṭ*.

TRANSLATION.

(Verse 1.) Homage to Śambhu charming with the yak-tail fan which is the moon kissing his lofty head, the foundation-column for the construction of the city of the three worlds

(Lines 2-4.) While the victorious reign of—hail!—the refuge of the whole world, favourite of Fortune and Earth, great Emperor, supreme Lord, supreme Master, ornament of **Satyāśraya's** race, embellishment of the **Chalukyas**, king **Tribhuvanamalla**, was advancing in a course of successively increasing prosperity, (*to endure*) as long as moon, sun, and stars :—

(Lines 4-13.) While he who finds sustenance at his lotus-feet,—hail!—the **Mahāmaṇḍa-lēśvara Jayakēśi-dēva**, who is decorated with the whole series of titles of honour, to wit, “ the noble scion of the **Trilōchana-Kadamba** lineage sprung from Hara and the Earth which is praised over the whole world; great august sun rising upon the peaks of the Lord of Mountains; fascinating the whole circle of the earth by peculiar majesty exceedingly intense as the sun's rays; having for **crest** a stately **lion**; having a **banner** (*bearing the device*) of a **great ape**; who is (*saluted*) with the noise of *permaṭṭi* drums and (*other*) musical instruments; who is sprung from the race presiding over eighty-four cities and consecrated in the consecratory rites of eighteen horse-sacrifices; who has established the puissance of his might upon the massive summits of the Lord of Mountains, the Himavat; a *jhampalāchārya* surpassing the world in bounty; a **Rāma** in intrepidity; a touchstone for the gold of warriors; an adamant castle for seekers of protection; a unique tree of desire for the world; white (*of fame*) as the time of conjunction¹; a **Nārāyaṇa** incarnate; a sun of glory; a frontal fillet of feudatory princes; a grindstone to foes; a crest-jewel of warrior kings; a crest-gem of the **Kadambas**,” and the Senior Queen **Maṇḍalā-mahā-dēvi**, were reigning with enjoyment of pleasant conversations :—

(Verse 2.) If any, being hungry, should come and ask for food, **Vāmaśakti Paṇḍita-dēva** will gladly give to him rice without saying nay, so that the whole earth praises (*him*).

(Verse 3.) Of **Malla Gāvunḍa**, who is pleasant of speech, a celestial tree to panegyrists and dependents, the eldest son is **Udayamma Gāvunḍa**, who is sage, devoted to Hara, a right noble man on earth.

(Verse 4.) Like a thunderbolt on occasions when hosts of foes assail (*him*), like a celestial tree on occasions when he makes gifts to suitors, devoted to Mṛḍa like **Bāpa**, is **Udayama Gāvunḍa** on earth.

(Lines 17-24.) Hail! On Sunday, the 5th day of the bright fortnight of **Āshāḍha** in the cyclic year **Krōdhi**, the 49th (*year*) of the **Chalukya-Vikrama** era, in the presence of the Sixteen **Gāvunḍas** of the great city of **Kundūr** (*and*) the establishment of the Five **Maṭhas**, **Udayama Gāvunḍa**, son of the **Ākarika(?) Malla Gāvunḍa** of **Erāṇigereyahalli**, having laved the feet of **Vāmaśakti Paṇḍita**, **Āchārya** of the establishment of **Kali-dēva-svāmi**, with pouring of water granted for as long as the moon shall endure a pious foundation on *sarva-namasya* tenure, immune from all conflicting claims, (*comprising*) a gravel-field of one *matṭar* west of the village (*and*) east of the stone-heap, and a paddy-field of one hundred *kamma* at the eastern corner of the **Konmasugere** used by the town, and two dwelling-houses south of (*the sanctuary of*) the god.

(Lines 24-28 : a prose formula of the usual type.)

(Verse 5 : a common Sanskrit verse.)


¹ Cf. *dirāḷichara-dhavalam*, above, Vol. XII, p. 269. The phrase probably refers to the **Dipāvālī** or **Diwālī** festival, from **Āśvina** kr. 14 to **Kārttika** śu. 2.

No. 10.—ARASIBIDI INSCRIPTION OF THE REIGN OF SOMESVARA I: SAKA 969.

BY LIONEL D. BARNETT.

Arasibīḍi, the ancient **Vikramapura**, is a decayed village in the Hungund *tāluka* of Bijāpūr District, situate in lat. 15° 54' and long. 75° 58' (cf. *Ind. Ant.*, Vol. 30, p. 260). Its name is written as *Arsubidda* on the Indian Atlas sheet 58 and the Hyderabad Survey sheet 30. In the local temple known as the *Sāḷeguḍi* was found a broken tablet containing the present record; an ink-impression was prepared for the late Dr. Fleet, which is now in the British Museum, and from it I now edit the text.

The upper part of the stone is decorated with some **sculpture**. Immediately over the inscribed area, on a plinth, is a figure of a squatting Jina, with a cow and sucking calf on his proper left, between two columns; and above this is a series of architectural divisions culminating in a vase-shaped *śikhara*. The inscribed area below is about 2 ft. 2½ in. broad and 2 ft. 2 in. high; but a line or two at the bottom is lost.—The character is a fair Kanarese of the period, the letters vary from ¼ in. to ⅝ in. in height. The *ri* of *riṣhiyargga*[*m*⁎] in l. 8 is denoted

by a modified *ri* with a tail attached .—The language is Old Kanarese prose, except for the Sanskrit verse-formula of which the first two letters appear on l. 22. The archaic *ḷ* is changed to *ḥ*, except in *eppattara* (l. 12, for *ēḷp*⁰, through *ērpp*⁰). The word *sarugi* (l. 7) is of some lexical interest.

The record, after referring itself to the reign of **Trailōkyamalla-dēva**, i.e. **Sōmēśvara I** (ll. 1-4), relates that **Akkā-dēvi**, while in the camp around the fortress of **Gōkāge**,¹ made a grant of lands to the *Gopada-beḍaṅgi*² Jain temple at **Vikramapura**, for the maintenance of the establishment and of the attached friars and nuns, among whom special mention is made of **Nāgasēna Paṇḍita** of the *Hogari*³ *Gachchha* of the *Varasēna Gaṇa* of the *Māla Saṅgha* (ll. 4-9). The rest of the inscription is taken up with the details of the endowment; among these we learn that some of the land was purchased from **Daḍigarasa** (l. 17), who was very possibly a member of the *Bappura* family which has left a record of its history in the *Sāḍi* inscription no. K. (above, Vol. XV, p. 106; cf. *Ind. Ant.*, Vol. XXX, p. 266).

The date is given on ll. 9-11 as: Śaka 969, the cyclic year *Sarvajit*; the new-moon of *Chaitra*, a Sunday; an eclipse of the sun. These details are perfectly regular. The given *tithi* corresponded to **Sunday, 29 March, A.D. 1047**, on which day it ended 6 h. 14 m. after mean sunrise.⁴ On the same day, at 5 h. 54 m. after mean sunrise, there was an eclipse of the sun (*Indian Calendar*, p. 121).

The following place-names are mentioned: **Gōkāge** (l. 6); **Vikramapura** (ll. 6, 13); the **Kisukāḍu Seventy** (ll. 11-12); **Gāpada Hālūr** (l. 12); **Muruvadina Pālu** (l. 13); **Rāyagaṭṭe** (l. 15); the tank of **Kappaḍi** (l. 18); **Benares** (l. 19). **Gōkāge** is the modern **Gōkāk**, the headquarters of the *Gōkāk tāluka*, in Belgaum District, situate in 16° 10' lat. and 74° 49' long. **Vikramapura** is **Arasibīḍi** (see above). On **Kisukāḍu** see *Ind. Ant.*, Vol. XXX, p. 259 ff. **Gāpada Hālūr** is given on the Indian Atlas as "*Ganuduhāl*," about 3 miles S.E. of **Arasibīḍi** in lat. 15° 52½' and long. 76° 1' (cf. *ibid.*, p. 261). The other local names I cannot trace.


¹ See *Dyn. Kan. Distr.*, pp. 435, 439. Dr. Fleet understood the words *sutt-trdda* to mean "besieging," which is possible, but not necessary.

² This title is evidently derived from *Akkā-dēvi*'s title *gūpada beḍaṅgiyar*, and shows that the temple was under her special patronage.

³ This name occurs also, in the older form *Pogari*, in *Ind. Ant.*, Vol. XIX, p. 272, and *Ep. Carn.* VII. i., Sk 124.

⁴ I have to thank Mr. R. Sewell for his kindness in verifying my calculations.

TEXT.¹

- 1  Svasti samasta-bhuvan-āśraya Śrī-Pṛithvī-vallabha mahārājādhirāja
paramēśvara-pa-
2 ramabhaṭṭāraka Satyāśraya-kula-tilaka Chālukya-ābharāṇa śrīma[t*]-Trailōkyama-
3 lla-dēvara vijaya-rājyam=uttarōttar-ābhivri(vṛi)ddhi-pravarddhamānam-ā-chaṇḍr-
ārka-tā-
4 raṇi-baraṇ saluttam-ire [I*] Svasti ari-nri(nṛi)pa-makuṭa-ghaṭita²-charaṇ-āravi-
(vi)mdeyar=Ggaṃgā-snāna-
5 pavitreyar=ddin-ānātha-chi(chi)ntāmaṇigaḷ-ēka-vākya[ya*]r-gguṇada beḍamgiyar=appa
śrīmad-A-
6 kka-dēvi[ya*]r Gōkāgeya kōṭeya vu(su)tt-irdda biḍinalu Vikramapurada
Goṇada-beḍamgiya
7 Jin-ālayakke khaṇḍa-sphuṭita-sudhā-karmmakkaṇ gandha-dhūpa-dipakkaṇ
sarugiga[m] Mūla-saṃga(gha)-
8 Va[ra*]sēna-gaṇada Hogariya gachchhada Nāgasēna-panḍitargga[m*] all-irppa
rīshiyargga[m*] ajjiya-
9 rgga[m*] āhāra-dānakkam ajjiyara kappadakk[k*]am kuḍuva bhūmi Sa(śa)ka-
varsha 999 neya
10 Sarvvajit-samvatsarada Chaim(chai)trād-amāsyē Ādityavāradaṃdina sūryya-gra-
11 hapa-nimittam dhārā-pūrvvakam māḍi nāgaradh(d)-anubhavaṇe(ne?) mukhyam=
āgi Kisu-
12 kaḍ-oppattara baḷiya sarvva-namasyam=āgi biṭṭa bāḍam Gāpada Hālūr=omdu
13 Vikramapurada yisānyada des[o*]y[im*] tōmṭam mattar=omdu ūrim teṃka
Muṇuvadina pā-
14 ja nairityada deseṇim paṇḍita-Nāgadēvaṃge sarvva-namasya martta³ paṇn-
neraḍu allim teṃka
15 paṇekāra Kētōjaṃge sarvva-namasya mattar=irppatta-nālku ūrim baḍaga Rāya-
gaṭṭeyim
16 mūḍa paṇekāra Kētōjaṃge tōmṭa mattar=omdu allim paḍuva kalkuṭiga
Sūrōjaṃge sa-
17 rbha-namasyam mattaru pannerāḍu tōmṭa mattar=omdu Daḍigarasana kayyalu
māru-goṇḍu dēvargge koṭṭa
18 bhūmi Kappaḍiya keṇeyim teṃka manneya-v[o]ladalu sarvva-namasya mattaru
50 [I*]
19 I(1) dharmmamam sva-dharmmadim rakshishi(si)davar Vāraṇāsiyalu ondu kōṭi
kavileyu-
20 mam vēda-pālanar=appa br[ā*]hmaṇarige koṭṭa pha[la]mam paḍavar I(1)
dharmmamam=alidava-
21 r ā sthānadoḷ=anitu kavileyuman=anirpe(tu) brāhmaṇar[umam]
22 sā* || Sāmā[nyō-yam]

¹ From the ink-impression.² The engraver has written *gāṭa*, and added *ṛi* in smaller script under the line.³ Read *mattar*.

TRANSLATION.

(Lines 1-4.) While the victorious reign of—hail!—the asylum of the whole world, favourite of Fortune and Earth, great Emperor, supreme Lord, supreme Master, ornament of Satyaśraya's race, embellishment of the Chakukyas, king Trailōkyamalla, was advancing in a course of successively increasing prosperity, (*to endure*) as long as moon, sun, and stars :—

(Lines 4-9.) Hail! she whose foot-lotuses are touched by the diadems of opponent kings, who is pure through bathing in the Ganges, a wishing-jewel to the distressed and masterless, uniform in speech, adorned with virtues, Akkā-dēvi, in the camp around the fortress of Gōkāge, granted land for (*the expenses of*) plastering the broken and burst (*masonry*) of the Goṇada-beḍaṅgi Jina temple at Vikramapura, and for (*the supply of*) scent, incense, and lamps, and for *sarugi*,¹ and for the maintenance of Nāgasēna Paṇḍita, (*a friar*) of the Hogariyu Gachchha of the Varasēna Gaṇa of the Māla Saṅgha, and of the friars and nuns residing there and for the cloaks of the nuns :—

• (Lines 9-18.) The lands given (*by her*) to the god, which she purchased of Daḍigarasa, on Sunday, the new-moon day of Chaitra in the cyclic year Sarvvajit, the 969th (*year*) of the Śaka era, on the occasion of an eclipse of the sun, with the performance of pouring of water, were : Gāpada Hālār, a town forming part of the Kisūkāḍu Seventy, granted on *sarva-namasya* tenure, in its entirety,² with usufruct of the citizens (Ī); one *mattar* of garden on the north-east of Vikramapura; south of the town, on the south-west of the Muṇuvadu Waste-land, twelve *mattar* on *sarva-namasya* tenure for Paṇḍita Nāgadēva; to the south thereof, twenty-four *mattar* on *sarva-namasya* tenure for the drummer Kētōja; north of the town, east of Rāyagaṭṭe, one *mattar* of garden for the drummer Kētōja; on the west thereof twelve *mattar* on *sarva-namasya* tenure (*and*) one *mattar* of garden for the stone-mason Sūrōja; (*furthermore*), 50 *mattar* on *sarva-namasya* tenure in the estate of the seignior south of the Kappaḍi tank.

(Lines 19-21 : a prose formula of the usual type.)

(Line 22 : the beginning of a common Sanskrit verse.)

No. 11.—THE BRAHMA-SIDDHANTA OF BRAHMAGUPTA (A.D. 628).

WORKING TABLES FOR COMPUTATION OF ANCIENT DATES BY THE TRUE, OR APPARENT, MOTIONS OF SUN AND MOON.

BY ROBERT SEWELL (I.C.S., RETIRED).

A continuation of the author's "Indian Chronography."

311. In para. 257 of my article on "*The true longitude of the sun in Hindu astronomy, the Siddhanta-Sirōmani*" (*above*, Vol. XIV, p. 241), and again in a later article on *The Siddhanta-Sirōmani*, § 271 (Vol. XV, pp. 159 sqq.), I discussed the question of the values assigned in the seventh century A.D. by Brahmagupta to the twenty-four base-sines of angles in the quadrant; and expressed the opinion that when, but not until, definite assurance was obtainable that the values stated in the only available copies of the *Brahma-Siddhanta* were³ really those fixed by its author, working Tables framed according to its postulates might safely be prepared for the computation of ancient dates.

¹ This term occurs elsewhere, e.g. in *Ep. Carn.* II (*Sravaṇa Beḷgoḷa*), No. 56, p. 52.

² Literally, "one."

³ One MS. copy in the India Office, London, and Benares printed edition.

In response to my appeal Mr. G. R. Kaye (Curator, Board of Education, Simla) has been kind enough to assist me. He tells me that there can be no doubt but that the values given for the several base-sines in the edition of the *Brahma-Siddhānta*, printed and published in Benares, are correct, and that Brahmagupta certainly made his calculations with a radius ($\sin. 90^\circ$) of 3270', discarding that of 3438', which seemingly had been in use in India since the time of the Greeks.¹ Mr. Kaye went fully into the subject in a very learned article, "*Ancient Hindu Spherical Astronomy*," published in the *Journal of the Asiatic Society of Bengal* in 1919 (*New Series*, Vol. XI, No. 3), which contains (Table 8, p. 187) a list of the sine-values as determined by the authors of the *Paulīsa*-, *Ārya*-, and *Brahma-Siddhāntas*. He points out that, when properly applied, the equations of the sun's and moon's centres obtained from the sine-values of Brahmagupta agree with those derived from the values assigned by the other authorities.

Accordingly I have prepared the Table of Brahmagupta's sines and resulting base-equations of the sun's centre (Table LXXXIX below); and a comparison between these and the equations of the *Siddhānta-Śirōmaṇi* (Table XLVII above, Vol. XIV, col. 9, and Prof. Jacobi's, Tables, XXIVB above Vol. I) proves that there is only a very trifling difference whether we use Brahmagupta's, or the older—and later—sine-values. By the *Siddhānta-Śirōmaṇi*, with radius 3438', the sun's greatest equation, that of 90° , = $2^\circ 10' 31''$, exact. By the *Brahma-Siddhānta*, with radius 3270', it = $2^\circ 10' 31''.19$. We may therefore safely use Table LXXXIX (below)² and Table LIX (above, Vol. XV) for the sun's and moon's equations by the *Brahma-Siddhānta*.

312. The *Brahma-Siddhānta* was composed by Brahmagupta in A.D. 628 and is said to have been extensively used in some parts of India, its principal rival being the *Ārya-Siddhānta* of Āryabhaṭa, known in later years as the *laghu-Ārya* to distinguish it from the *Mahā-Ārya-Siddhānta* of the tenth century. This last, called also the *Second Ārya-Siddhānta*, seems to have had no great following. The *Rājamṛigāṅka*, an astronomical work of A.D. 1042 introduced, according to the information available to the late Sankara Bālkrishna Dikshit, some important changes into the system of Brahmagupta; but unfortunately no complete copy of it has yet been obtained, and the necessary particulars are not to be found in those fragments which have come to light. It is not possible therefore to frame any accurate Tables for calculation by the *Rājamṛigāṅka*, and we must rest satisfied with the assurance of Mr. S. B. Dikshit³ that the *Siddhānta-Śirōmaṇi* is the same as the *Rājamṛigāṅka* in the matter of calculation of a *pañchāṅg*. Tables for use by the former have already been published by me, comprising the period A.D. 1100-1750 (above, Vol. XV).

All the authorities appear to arrive at similar or almost similar results in their computation of the lunar tithis, when worked by the true or apparent motions of sun and moon; but, since they differ in their estimate of the position of the sun's apsis at a given date, they necessarily differ somewhat in their estimate of the moment in each year when the true sun reaches long. 0° , the moment, that is, of "true Mēsha-samkrānti." This difference leads to differences in the lengths of the true solar months, and consequently to differences in the intercalation and suppression of true lunar months; which differences, again, occasionally cause differences of a whole lunar month in the beginning of the luni-solar year and differences in the names of some of the lunar months therein.

¹ It would be interesting to learn his reason for the change. Later Indian astronomers reverted to the radius of 3438', which is correct. With $\pi = 3.14159$ the radius = 3137.74967. Brahmagupta's radius 3270 implies a ratio $\pi = 3.303$. The ratio according to Archimedes (B.C. 250) was 3.14286. The ratio $1 : \sqrt{10}$ mentioned in the *Sūrya-Siddhānta* = 3.16228.

² Or Table XLVII (above, Vol. XIV), col. 9; also Professor Jacobi's Tables XXIVA, XXIVB (Vol. I).

³ *Indian Calendar*, p. 8.

But we are now better able to deal with these matters than before. Dates can be easily computed by the true motions of sun and moon according to the *Sūrya-Siddhānta* for the whole historical period from A.D. 300 to 1900 (*Indian Calendar*)¹; according to the *Ārya-Siddhānta* from A.D. 900 downwards (*above*, Vol. XVI); according to the *Brahma-Siddhānta* (*the present paper*) from A.D. 600 to 1200; and according to the *Siddhānta-Śirōmaṇi*, *Rājamaṇḍikā* and other works of the time of Bhāskarāchārya from A.D. 1100 to 1750 (*above*, Vol. XV); these periods comprising the outside limits of use.

And, as regards computation by the mean motions of sun and moon, which system is believed to have been in universal use down to about A.D. 1100, and perhaps in some places to a considerably later date, we now have Tables for work by the *Ārya-Siddhānta* from A.D. 500 to 1400 (*above*, Vol. XVII); while I hope to be able to publish here after a set of similar Tables for the *Brahma-Siddhānta*, also embracing the outside period of use.

All these Tables are framed on the same system, so as to enable calculation to be made as easily and rapidly as possible.

Elements of the Brahma-Siddhānta.

313. (i) The length of the mean solar sidereal year is 365·2584375 days, or 365^d 6^h 12^m 9^s. The *Siddhānta-Śirōmaṇi* adhered to this estimate.

(ii) Brahmagupta's sines of angles of the quadrant differ from those of the other authorities. His sine of 90°, the radius, = 3270' instead of 3438'. His sine of 3° 45' = 214' instead of 225'. The 24 base-sines are given in Table LXXXIX below.

(iii) The equations, however, which are based on these sine-values are practically the same as those of the *Siddhānta-Śirōmaṇi* (compare Table XLVII *above*, Vol. XIV, col. 9, and Table LXXXIX *below*). Tables LV, LVI, LIX (*above*, Vol. XV) may be therefore used as well for the *Brahma-Siddhānta* as for the *Siddhānta-Śirōmaṇi*.

(iv) The greatest equation of the sun's centre, that of 90°, is, in 10,000ths of the circle, 60·425925. The greatest equation of the moon's centre is, in similar measurement, 139·858101852. The sum of the two is 200·284027.

(v) The epoch of the Kaliyuga era was mean sunrise, taken as 6 A.M., on Friday, 18 February, B.C. 3102, that moment being 0^h 0^m 0^s Lakṣa time. * This was the moment of mean Mēsha-samkrānti, when the mean sun's centre reached long. 0°. True Mēsha-samkrānti, when the true sun's centre reached long. 0°, occurred on Tuesday, 15 February, B.C. 3102, at 19^h 52^m 21^s·5 after mean sunrise at Lakṣa.

(vi) The circumference of the sun's epicycle is 13° 40', that of the moon 31° 46'. The epicycles are not contracted at any point. In this the *Siddhānta-Śirōmaṇi* concurs (*Jacobi*, Vol. I *above*, p. 441).

(vii) The line of apsides of the sun's orbit has a constant forward shift, the perigee-point (on the longitude of which my calculations are based) moving 0^h·144 per ann., or 14^m·4 in a century. According to the *Siddhānta-Śirōmaṇi* the movement is more rapid, amounting to 1^h·044 per ann. (*Jacobi*, *op. cit.*).

(viii) The *śodhya*, or time-interval between true and mean Mēsha-samkrāntis, was, in A.Y. 0 or at the epoch of the Kaliyuga era, according to Dr. Schram,² 2^d 171971 or 2^d 4^h 7^m 38^s·5. With this the *Siddhānta-Śirōmaṇi* agrees. But in later years the *śodhya*, as postulated by the two authorities, differs in value owing to the difference between the two *Siddhāntas* in their estimate of the movement of the sun's apsis. (*See vii above.*)

¹ Also by the *Indian Chronology* of Dewan Bahadur L. D. Swamikannu Pillai, M.A., whose Tables are framed on a different system.

² *Indian Chronography*, § 89 D, p. 16.

(ix) The position of the sun's apsis (perigee) at K.Y. 0, the epoch of the Kaliyuga, was $257^{\circ} 45' 36''$,¹ and his mean anomaly was $102^{\circ} 14' 24''$, or, in 10,000ths of the circle, 284.0.

(x) The position of the moon's apsis (perigee) at the same moment was $305^{\circ} 29' 46''$ ²; and her mean anom. was $54^{\circ} 30' 14''$, or, in 1,000ths of circle, 151.399691358.

(xi) The sun's mean velocity (he is treated as a planet) and the length of the mean solar year being the same both by the *Brahma-Siddhānta* and the *Siddhānta-Śirōmaṇi*, his mean long. at any moment must be the same by both, and so also the length of the mean solar month. But the two authorities are not in exact accord as to his true long. and the length of the true solar month.

Shift of sun's apsis. The śodhya. Length of true solar year.

314. The length of the mean solar year being the same, viz. $365^d 6^h 12^m 9^s$, by both the *Brahma-Siddhānta* and the *Siddhānta-Śirōmaṇi*, the first portion of § 273 above (Vol. XV) and accompanying Table A apply as well to the former as to the latter. But for the latter portion that section and its Table B, the following must be substituted when dealing with the *Brahma-Siddhānta*, the two authorities not being in accord as concerns the matter in question.

315. As stated above, the sun's perigee-point according to the *Brahma-Siddhānta* advances annually $0^{\circ} 14'$ along the ecliptic, and in consequence of this shift the true sun's velocity at long. 0° is a little greater every year than the year before, i.e. the true sun reaches long. 0° , or the moment of true Mēsha-samkrānti occurs, a little earlier each year. In every year there is a slight increase in the distance and time-difference (our *śodhya*) between the mean and true suns at that point of the orbit. Dr. Schram has carefully calculated the value of this *śodhya* at the moment of true Mēsha-samkrānti at the beginning of several millenniums, and his results for the period embraced in my general working Table LXXXII are stated in the following Table B.

TABLE B.

VALUE OF ŚODHYA BY THE BRAHMA-SIDDHĀNTA.

| K.Y. year
expired. | A.D. | EXACT VALUE OF ŚODHYA AT
BEGINNING OF CENTURIES. | | |
|-----------------------|-----------|---|----------|---------|
| | | days and
decimals. | d. h. m. | s. |
| 3700 | 599-600 | 2.1729145 | 2 4 8 | 59.8128 |
| 3800 | 699-700 | 2.1729400 | 2 4 9 | 2.0160 |
| 3900 | 799-800 | 2.1729655 | 2 4 9 | 4.2192 |
| 4000 | 899-900 | 2.1729910 | 2 4 9 | 6.4224 |
| 4100 | 999-1000 | 2.1730165 | 2 4 9 | 8.6256 |
| 4200 | 1099-1100 | 2.1730420 | 2 4 9 | 10.8288 |
| 4300 | 1199-1200 | 2.1730675 | 2 4 9 | 13.0320 |

One result of this shift of apsis is that, by the *Brahma-Siddhānta*, the true sun reaches the 0° point of long. $0^{\circ} 022032$ earlier every year than the year before, and in consequence the length of the true solar year, or the time needed for the true sun to travel from true Mēsha-samkrānti

¹ Jacobi, *above*, Vol. I, p. 442, § 83, where he gives the place of the apsis (apogee) as $77^{\circ} 45' 36''$. See also E. Burgess's "*Sūrya-Siddhānta*."

² Moon's apogee given by Jacobi as $125^{\circ} 29' 46''$.

in one year to true Mēsha-samkrānti in the next, is $(365^d 6^h 12^m 9^s - 0^s.022032)$ $365^d 6^h 12^m 8^s.977968$. [The exact moment of true Mēsha-samkrānti in each year from A.D. 599 to 1200 is given in the general Table LXXXII below, cols. 13-17. It can be tested by the use of Table A, § 273, referred to above, and Table B here given, using the "longer rule" stated in § 273 or in *Indian Chronography*, p. 61.]

Another result of the shift is that the sun's mean anomaly, or the mean sun's distance from the sun's perigee-point, decreases every year by $0^s.144$ or $14''.4$ in a century. Reckoning in 1,000ths of circle for valuation of our c (sun's mean anom.) in the Tables, $14''.4 = 0.01$. The value of c therefore decreases 0.01 in a century, and this decrease has to be taken into account from K.Y. 0, the epoch of the Kaliyuga. This has been done in the preparation of the Tables which follow.

The increase of a, b, c, in centuries, years, days and fractions of days.

316. Following on what has been stated, we learn that Tables LIVA and B, which deal with the periodical increases of a , b and c according to the *Siddhānta-Sirōmaṇi*, may safely be used for calculation by the *Brahma-Siddhānta*, with the one reservation as to the increase of c in a century. a being the distance of mean moon from mean sun, and the longitude of the mean sun not being affected by the shift of apsis, but only his mean anom., or distance from the point of the apsis, it appears that the rate of increase of a must be same by both authorities.

As to the rate of increase of c it is, by the *Siddhānta-Sirōmaṇi*, centennially less by 0.0805 (§ 273 above), and this was taken into account in the preparation of the heading of Table LIVA, where a footnote is appended shewing what the rate of increase would be per century if no such deduction had been made. This rate is, in thousandths of a circle, 997.690008075 in a century of 36525 days, and 0.427795618 in a century of 36526 days. By the *Brahma-Siddhānta*, the centennial decrease in the sun's mean anomaly being 0.01 , the amount of increase of c per century is, for a century of 36525 days, 997.678896964 , and for a century of 36526 days is 0.416684507 . The difference between the two authorities in shorter periods may be ignored except in some extraordinarily close case. If it is ever needed, the increase in c in one year may be reduced by 0.0001 from the Table quantity.

Otherwise Tables LIVA and B stand good for calculations by the *Brahma-Siddhānta*.

The values of a, b, c at the beginning of K.Y. 3700.

/ 317. The general Table LXXXII below begins from the beginning of K.Y. 3700 expired. Table LXXXVI states the value of a , b , c at that moment, and at the similar moment at the beginning of subsequent centuries. It is necessary therefore to explain how these figures were calculated.

(i) *The value of a (distance of mean moon from mean sun) in K.Y. 3700.* According to Hindu astronomers mean moon and mean sun were in conjunction at the moment of mean Mēsha-samkrānti in K.Y. 0, the epoch of the Kaliyuga; or, in other words, at that moment $a = 0$. In the 37 succeeding centuries there were 32 common and 5 defective centuries. Taking the century values of a given in the heading of Table LIVA and multiplying for 32 common and 5 defective centuries, we arrive at the figure 6567.108945284 as the value of a at the beginning of the 37th century K.Y., whole revolutions of 10,000 each being omitted. From this figure has to be deducted,—according to the working system of the *Indian Calendar*, which follows Largeteau and Jacobi,—the sum of the greatest equations of sun and moon, viz. 200.284027 (above § 313, iv). This gives us the value of a at the beginning of K.Y. 3700 (expired) as 6366.824917506 .¹

¹ Professor Jacobi differs by about 17 units. He gives the figure 6384.0 (*Vol. XI above*, p. 167, Table IXA). I can give no explanation of the reason for this; and can only state fully, as in the text, my bases of calculation.

Now this value stands for mean sunrise of Sunday, 22 March, A.D. 599, i.e. for the sunrise succeeding the moment of occurrence of mean M'isha-samkrānti in K.Y. 3700; but in all my Tables the calculation is for mean sunrise on the actual day of that occurrence, and we have therefore to deduct one day's value of a (viz. 338·631985412—Table LIVA above) from the above estimate. This done, we have, for mean sunrise on Saturday, $a = 6028·192932094$.

(ii) *The value of b (moon's mean anom.) at the same moment.* At the epoch of the Kaliyuga the moon's mean anom. was, as stated above (§ 313, x), in 1,000ths of a circle 151·399691358. Using the century figures of b in the heading of Table LIVA, and multiplying for 32 common and 5 defective centuries, it is found that, excluding whole revolutions of 1,000 each, the result is 604·144838202. Adding the value of b at K.Y. 0, as above, we have at beginning of K.Y. 3700, for the value of b , 755·544529560.¹ But this (see above, i) was its value at mean sunrise on Sunday, 22 March, A.D. 599. Deducting one day's value of b (36·291649786) the fixture for mean sunrise on Saturday, 21 March, amounts to 719·252879774.

(iii) *The value of c (the sun's mean anom.) at the same moment.* The correct increase of c by the *Brahma-Siddhānta* in centuries of 36525 and 36526 days has been given above in the latter part of § 316. Multiplying those quantities for 32 common and 5 defective centuries, and discarding whole revolutions of 1,000 each, we arrive at the increase, after 37 centuries, of 1·728389044. To this has to be added the value of c at K.Y. 0 (above, § 313, ix), viz. 284·0. The value of c , therefore, at mean sunrise of Sunday, 22 March, A.D. 599, was 285·728389044.² Deducting the c for one day (2·737787543) we have finally, for mean sunrise on Saturday, 21 March, $c = 282·990601501$.

The entries, therefore, for the aforesaid Saturday of K.Y. 3700 in Table LXXXVI below are

$$\begin{aligned} a &= 6028·1929 \\ b &= 719·2529 \\ c &= 282·9906. \end{aligned}$$

The rest of that Table follows by addition of the proper century values.

Duration of true solar months.

318. It has been mentioned above (§ 313, xi) that, while the length of the mean solar month must be the same both by the *Brahma-Siddhānta* and the *Siddhānta-Sirōmaṇi*, the lengths of the true solar months according to the two authorities differ because of their different estimate of the shift of the sun's apsis. Thus in K.Y. 4000, the middle year of my general Table LXXXII below, the sun's perigee-point according to the *Siddhānta-Sirōmaṇi* was at long. 258° 55' 12", while by the *Brahma-Siddhānta* it was at long. 257° 55' 12". Hence the velocity of the true sun (he is always considered as a planet) at the several true solar *samkrāntis*, when the true sun's centre enters the several signs, is not the same by the two authorities quoted. And this has necessitated the preparation of a new Table (LXXXIII below), giving the lengths of the true solar months and increase of a , b , c therein individually and collectively according to the *Brahma-Siddhānta*.

There being in K.Y. 4000 a difference of only 4' 48" between the positions of the sun's perigee, as estimated by the *Brahma-Siddhānta* and by the *First Arya-Siddhānta*, the former placing it at 257° 55' 12" and the latter at 258°, it was considered sufficiently safe to use Table XLIX (above, Vol. XIV) for the true sun's velocity at different points of his orbit in hours and minutes, and Table L-A for seconds. His true long. at each *samkrānti* was computed from his known mean longitude + the equation of the centre, which was calculated in each case.

¹ Professor Jacobi's figure for this is 758·1, in my notation, against my 755·5.

² This agrees with Professor Jacobi's fixture, which, measured from perigee and in my notation, is 285·7.

Thus was obtained the length of each month in days, hours, etc. For the increase of a , b , c during the periods so determined Tables LIVA and B, which are applicable to the *Brahma-Siddhānta* as well as to the *Siddhānta-Sirōmaṇi*, were used.

Note on work for the nakshatra.

319. In our method of work s = the true sun's longitude and t = the *tithi*-index (which shews the true moon's distance from the true sun) at the given moment. $s + t$ = the *naksha-tra*-index n , which gives the true moon's place in the heavens, or her apparent longitude. The value of t is ascertained by the ordinary calculation for a date. The value of s has to be found.

By the *Ārya-Siddhānta* the formula for finding s , c being the sun's mean anom. at the given moment, is $s = (c \times 10) + 7226 - \text{eqn. } c$; where the factor 7226, which represents in 10,000ths of circle the long. of sun's perigee *plus* the sun's greatest equation, is a constant.¹

By the *Sūrya-Siddhānta*, as exemplified in the *Indian Calendar Tables*, the numerical factor is not 7226, but varies in the period A.D. 900 to 1900 from 7206·5077 to 7207·4035 being fixed for rough work at 7207. The variation is due to the postulated shift of the sun's perigee-point.

By the *Siddhānta-Sirōmaṇi* there is, for the same reason, a variation in the numerical factor, *viz.* from 7252·6466 in A.D. 900 to 7259·0910; in A.D. 1700,—roughly from 7253 to 7259.

By the *Brahma-Siddhānta* the numerical factor varies from 7224·5370 in A.D. 600 to 7225·2037 in A.D. 1200 (the limits of the general Table LXXXII below). For rough work therefore by this authority the formula is $s = (c \times 10) + 7225 - \text{eqn. } c$.

For more accurate work the value of c should be calculated (by the Tables) with decimals, and instead of multiplying c by 10 its value should be changed from thousandths of circle (as in the Table-result) to ten thousandths by moving the decimal point one place to the right²; the value of eqn. c can be obtained from Table LVI with great accuracy; and the numerical factor can be taken from the following summary.

| K.Y.
century. | A.D.
century. | Exact factor in
formula. | Roughly. |
|------------------|------------------|-----------------------------|----------|
| 3700 | 599-600 | 7224·5370 | 7225 |
| 3800 | 699-700 | 7224·6481 | |
| 3900 | 799-800 | 7224·7592 | |
| 4000 | 899-900 | 7224·8703 | |
| 4100 | 999-1000 | 7224·9814 | |
| 4200 | 1099-1100 | 7225·0925 | |
| 4300 | 1199-1200 | 7225·2037 | |

Examples.

It is not necessary to give a number of examples of work by the present Tables. The system of calculation being exactly the same as that of the *Indian Calendar* and throughout the present series of articles, the examples already published for computation by other authorities

¹ See *Indian Calendar*, § 156, p. 97; article on the *Siddhānta-Sirōmaṇi*, above, Vol. XV, § 273, "Note on work for the nakshatra"; article on the *First Ārya-Siddhānta*, Vol. XV above, § 302; and the several examples given in those papers.

² Whole revolutions are not necessary for present purposes, and in our system when $a = 10,000$ a whole synodic revolution of the mean moon has been completed.

will suffice, *the proper Tables being used*, for work by the *Brahma-Siddhānta*. These Tables are specified in the following pages.

Examples have been given in all my foregoing papers, but perhaps the fullest series is to be found in the article on the *First Ārya-Siddhānta* (above, Vol. XVI).

Tables for calculation by the Brahma-Siddhānta.

The system of work for computation of an Indian date will be readily understood by perusal of examples 2 to 11 appended to my paper (above, Vol. XVI) on the *First Ārya-Siddhānta*; but the Tables used are of course not all the same. The following list shews how accurate results by the *Brahma-Siddhānta* are to be obtained in calculation by the movements of true sun and true moon.

Table LXXXII below is the general working Table for the *Brahma-Siddhānta* for the period A.D. 599 to 1200 (K.Y. 3700 to 4300 expired).

For names of months and of nakshatras in different parts of India, see Table LXII above (Vol. XVI, "*The First Ārya-Siddhānta*").

For collective duration of mean lunar months see Table LXIIIA of the same article, or Table III, Part I, *Indian Calendar*.

Table LXXXIIIA below gives, by the *Brahma-Siddhānta*, the length of the true solar months and their collective duration, with the corresponding increases of a , b , c .

Table LXXXIIIB states the exact value of c and of "equation c " at the several true *saṁkrāntis*, or moments of the true sun's centre reaching the several signs.

Table LXXXIIIC shews the value of c and of "equation c " at the beginning of each century of the Kaliyuga.

For the increase of a , b , c respectively in defective and common centuries, and in common years and Leap-years, see Table LIVA, heading; but note that by the *Brahma-Siddhānta* the increase of c in a defective century of 36525 days is 997.678896964 and in a common century of 36526 days is 0.416684507. Tables LIVA and B contain the necessary figures for days, hours, minutes and seconds.

Table LXXXIV gives the values of "equation b ," and Table LXXXV those of "equation c ," for easy calculation by whole numbers, corresponding respectively to Tables VI and VII of the "*Indian Calendar*," which stand for the *Sūrya-Siddhānta*.

For the more detailed values of "equation b " and "equation c " of moon and sun use Tables LV and LVI above, Vol. XV, as framed for the *Siddhānta-Śirōmaṇi*.

For the indices of *tithis* (t), *karāṇas*, *yōgas* (y) and *nakshatras* (n) see Table VIII, "*Indian Calendar*," or Table LXVIII (above, Vol. XVI, "*The First Ārya-Siddhānta*").

For serial numbers of days of a year reckoned from January 1st use Table IX, "*Indian Calendar*," or Table LXIX (above, Vol. XVI, "*The First Ārya-Siddhānta*").

For conversion of *tithi*-indices and *tithi*-parts into time Table X, "*Indian Calendar*," is to be used, or Table LXX (above, Vol. XVI, "*The First Ārya-Siddhānta*").

For finding the week-day according to the European Calendar for any century from A.D. 0 to 2300 see Table LXXI (above, Vol. XIV, "*The First Ārya-Siddhānta*"), or Tables XLIA and B (pp. 176, 177, "*Indian Chronography*").

Table LXXXVI gives the values of a , b , c at the beginning of each century of the Kaliyuga by the *Brahma-Siddhānta*.

Table LXXXVII gives the same for odd years of those centuries.

Table LXXXVIII states the daily sunrise values of a , b , c for a month previous to the day of Mēsha-saṁkrānti.

Table LXXXIX sets forth the 24 base-sines of angles of the quadrant according to *Brahma-gupta*, and the corresponding equations of the sun's centre.

TABLE LXXXII.

CONSTRUCTION OF TABLE.

The Table is constructed on the lines of Table I of the *Indian Calendar* and is to be used in the same way. The columns are numbered similarly.

Col. 7. The *saṃvatsara*-name,—i.e. the name of the Jovian cycle—, of the year is given as determined by my previous calculations (*above*, Vol. XIII Table XLII). Entries in italics point to cases where this *saṃvatsara*-name differs from that given to the same year by *Sūrya-Siddhānta* reckoning.

Col. 8. Months noted in roman characters are intercalated (*adhika*) lunar months. Those in italics are suppressed (*kshaya*) months.

Cols. 13, 19. Figures in brackets give the serial number of the day [measured from January 1st.

Col. 23. a =distance, at mean sunrise, of mean moon from mean sun, or phase of moon stated in 10,000ths of circle, and reduced by the sum of the greatest equations of sun and moon so that calculation of the equations of b and c may always be additive.

Col. 24. b =mean anomaly of moon or mean moon's distance from perigee-point of apsis stated in 1,000ths of circle.

Col. 25. c =mean anomaly of sun or mean sun's distance from perigee, stated in 1,000ths of circle.

REMARKS.

A.D. 629-630, cols. 19, 20. A very close case. The moment of true new moon was less than half a minute after mean sunrise at Laṅkā on Wednesday, 1st March. And the first *śukla tithi* of the year ended after mean sunrise on Thursday, 2nd March, which was therefore by rule the first civil day of the luni-solar year. If new moon had taken place more than half a minute earlier the first civil day of the year, "Chaitra śukla 1," would have been 1st March.

A.D. 968-69, col. 8. At the Kumbha *saṃkrānti* the true moon was waning. The moment of the next, the Mīna, *saṃkrānti* occurred about $2\frac{1}{2}$ minutes after the moment of true new moon, so that the true moon was waxing at the Mīna *saṃkrānti*. Hence the lunar month Phālguna was intercalated. According to the 19-year sequence we should have expected an intercalation of the lunar month Chaitra next following. The sequence shows similar irregularities when examined by other authorities, but only very rarely.

A.D. 974-75, cols. 19, 20. Close case. The 1st true new moon after the Mīna *saṃkrānti* occurred 3 minutes before mean sunrise at Laṅkā on 25th February A.D. 974. That therefore was the day "Chaitra śukla 1."

A.D. 963-64, 982-83, col. 9. In both these years an intercalation of the lunar month Śrāvaṇa instead of Āshāḍha would have been more in accordance with the 19-year sequence, seeing that Śrāvaṇa was the intercalated month in A.D. 1001 and 1020; but prior to A.D. 963 at intervals of 19 years there had been eight intercalations of Śrāvaṇa, and toward the close of such a run a change of conditions generally becomes apparent.

A.D. 1001-2, 1020-21, col. 8. See the previous note. If in these two years the conditions had made necessary an intercalation of Āshāḍha, the 19-year sequence would have been uninterrupted.

A.D. 1128-29, col. 8. By the *Brahma-Siddhānta* the intercalation of Phālguna was clearly demanded. See Remarks preceding Table LX (*above*, Vol. XV), on the same year as worked by the *Siddhānta-Śirōmaṇi*.

TABLE

GENERAL TABLE FOR CALCULATION

Conforming to Table I " Indian Calendar "

(See notes on

| CONCURRENT YEAR. | | | | | | | | Intercalated
(adhika) and
suppressed
(kshaya) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3701 | 522 | 657 | 6 | | 599-600 | 50 Anala . . . | | ... |
| 3702 | 523 | 658 | 7 | | *600-01 | 51 Piṅgala . . . | | 3 Jyēshṭha . |
| 3703 | 524 | 659 | 8 | | 601-02 | 52 Kālayukta. . . | | ... |
| 3704 | 525 | 660 | 9 | | 602-03 | 53 Siddhārthin . . . | { 7 Āsvina
11 Māgha (ksh.) } | |
| 3705 | 526 | 661 | 10 | | 603-04 | 54 Raudra . . . | | 1 Chaitra . |
| 3706 | 527 | 662 | 11 | | *604-05 | 55 Durmati . . . | | ... |
| 3707 | 528 | 663 | 12 | | 605-06 | 56 Dundubhi . . . | | 5 Śrāvaṇa . |
| 3708 | 529 | 664 | 13 | | 606-07 | 57 Rudhirōdgārin . . . | | ... |
| 3709 | 530 | 665 | 14 | | 607-08 | 58 Raktāksha . . . | | ... |
| 3710 | 531 | 666 | 15 | | *608-09 | 59 Krōdhana . . . | | 4 Āshāḍha . |
| 3711 | 532 | 667 | 16 | | 609-10 | 60 Kshaya . . . | | ... |
| 3712 | 533 | 668 | 17 | | 610-11 | 1 Prabhava . . . | | ... |
| 3713 | 534 | 669 | 18 | | 611-12 | 2 Vibhava . . . | | 2 Vaiśākha . |
| 3714 | 535 | 670 | 19 | | *612-13 | 3 Śukla . . . | | ... |
| 3715 | 536 | 671 | 20 | | 613-14 | 5 Pramōda . . . | | 6 Bhādrapada |
| 3716 | 537 | 672 | 21 | | 614-15 | 6 Prajāpati . . . | | ... |
| 3717 | 538 | 673 | 22 | | 615-16 | 6 Aṅgirasa . . . | | ... |
| 3718 | 539 | 674 | 23 | | *616-17 | 7 Śrīmukha . . . | | 4 Āshāḍha . |
| 3719 | 540 | 675 | 24 | | 617-18 | 8 Bhāva . . . | | ... |
| 3720 | 541 | 676 | 25 | | 618-19 | 9 Yuvan . . . | | ... |
| 3721 | 542 | 677 | 26 | | 619-20 | 10 Dhātṛi . . . | | 3 Jyēshṭha . |
| 3722 | 543 | 678 | 27 | | *620-21 | 11 Īsvara . . . | | ... |

LXXXII.

BY THE BRAHMA-SIDDHANTA.

*the columns being similarly numbered.**preceding page.)*

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mōsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 19 Mar. (78) | 5 Thur. | 1 6 0 | 3 Mar. (62) | 3 Tues. | 9932-8171 | 60-0032 | 233-7104 | 3701 |
| 18 Mar. (78) | 6 Fri. | 7 18 9 | 21 Feb. (52) | 1 Sun. | 147-1720 | 949-5390 | 205-6250 | 3702 |
| 18 Mar. (77) | 0 Sat. | 13 30 18 | 11 Mar. (70) | 0 Sat. | 181-8544 | 885-5324 | 256-9354 | 3703 |
| 18 Mar. (77) | 1 Sun. | 19 42 27 | 28 Feb. (59) | 4 Wed. | 57-5772 | 732-7766 | 226-1121 | 3704 |
| 19 Mar. (78) | 3 Tues. | 1 54 36 | 18 Feb. (49) | 2 Mon. | 271-9320 | 616-3122 | 203-5023 | 3705 |
| 18 Mar. (78) | 4 Wed. | 8 6 45 | 7 Mar. (67) | 0 Sat. | 9967-9825 | 516-0140 | 246-5994 | 3706 |
| 18 Mar. (77) | 5 Thur. | 14 18 54 | 24 Feb. (55) | 4 Wed. | 9843-7052 | 363-2681 | 215-7762 | 3707 |
| 18 Mar. (77) | 6 Fri. | 20 31 3 | 15 Mar. (74) | 3 Tues. | 9878-3876 | 290-1516 | 267-0865 | 3708 |
| 19 Mar. (78) | 1 Sun. | 2 43 12 | 4 Mar. (63) | 0 Sat. | 9754-1105 | 146-4956 | 236-2624 | 3709 |
| 18 Mar. (78) | 2 Mon. | 8 55 21 | 22 Feb. (53) | 5 Thur. | 9968-4653 | 30-0312 | 208-1780 | 3710 |
| 18 Mar. (77) | 3 Tues. | 15 7 30 | 12 Mar. (71) | 4 Wed. | 3-1477 | 966-0247 | 259-4884 | 3711 |
| 18 Mar. (77) | 4 Wed. | 21 19 39 | 2 Mar. (61) | 2 Mon. | 217-5025 | 849-5604 | 231-4029 | 3712 |
| 19 Mar. (78) | 6 Fri. | 3 31 48 | 19 Feb. (50) | 6 Fri. | 93-2254 | 696-8045 | 200-5797 | 3713 |
| 18 Mar. (78) | 0 Sat. | 9 43 57 | 9 Mar. (69) | 5 Thur. | 127-9077 | 632-7980 | 251-8902 | 3714 |
| 18 Mar. (77) | 1 Sun. | 15 56 6 | 26 Feb. (57) | 2 Mon. | 3-0306 | 480-0421 | 221-0609 | 3715 |
| 18 Mar. (77) | 2 Mon. | 22 8 15 | 16 Mar. (75) | 0 Sat. | 9999-6810 | 379-7440 | 269-6395 | 3716 |
| 19 Mar. (78) | 4 Wed. | 4 20 24 | 6 Mar. (65) | 5 Thus. | 9914-0358 | 263-2795 | 241-5542 | 3717 |
| 18 Mar. (78) | 5 Thur. | 10 32 33 | 23 Feb. (54) | 2 Mon. | 9789-7587 | 110-5236 | 210-7310 | 3718 |
| 18 Mar. (77) | 6 Fri. | 16 44 42 | 13 Mar. (72) | 1 Sun. | 9824-4420 | 46-5171 | 262-0414 | 3719 |
| 18 Mar. (77) | 0 Sat. | 22 56 51 | 3 Mar. (62) | 6 Fri. | 38-7959 | 930-0528 | 233-9559 | 3720 |
| 19 Mar. (78) | 2 Mon. | 5 9 0 | 21 Feb. (52) | 4 Wed. | 253-1507 | 813-5885 | 205-8705 | 3721 |
| 18 Mar. (78) | 3 Tues. | 11 21 9 | 11 Mar. (71) | 3 Tues. | 287-8331 | 749-5820 | 257-1810 | 3722 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(adhika) and
suppressed
(kshaya) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3723 | 544 | 679 | 28 | | 621-22 | 12 Bahudhānya . . . | | 7 Āśvina . . |
| 3724 | 545 | 680 | 29 | | 622-23 | 13 Pramāthin . . . | | ... |
| 3725 | 546 | 681 | 30 | | 623-24 | 14 Vikrama . . . | | ... |
| 3726 | 547 | 682 | 31 | | *624-25 | 15 Vrisha . . . | | 5 Śrāvaṇa . |
| 3727 | 548 | 683 | 32 | | 625-26 | 16 Chitrabhānu . . . | | ... |
| 3728 | 549 | 684 | 33 | | 626-27 | 17 Subhānu . . . | | ... |
| 3729 | 550 | 685 | 34 | | 627-28 | 18 Tārana . . . | | 4 Āshāḍha . |
| 3730 | 551 | 686 | 35 | | *628-29 | 19 Pārthiva . . . | | ... |
| 3731 | 552 | 687 | 36 | | 629-30 | 20 Vyaya . . . | | ... |
| 3732 | 553 | 688 | 37 | | 630-31 | 21 Sarvajit . . . | | 2 Vaiśākha . |
| 3733 | 554 | 689 | 38 | | 631-32 | 22 Sarvadhārin . . . | | ... |
| 3734 | 555 | 690 | 39 | | *632-33 | 23 Virōdhin . . . | | 6 Bhādrapada |
| 3735 | 556 | 691 | 40 | | 633-34 | 24 Vikṛita . . . | | ... |
| 3736 | 557 | 692 | 41 | | 634-35 | 25 Khara . . . | | ... |
| 3737 | 558 | 693 | 42 | | 635-36 | 26 Nandana . . . | | 4 Āshāḍha . |
| 3738 | 559 | 694 | 43 | | *636-37 | 27 Vijaya . . . | | ... |
| 3739 | 560 | 695 | 44 | | 637-38 | 28 Jaya . . . | | ... |
| 3740 | 561 | 696 | 45 | | 638-39 | 29 Manmatha . . . | | 3 Jyēshṭha . |
| 3741 | 562 | 697 | 46 | | 639-40 | 30 Durmukha . . . | | ... |
| 3742 | 563 | 698 | 47 | | *640-41 | 31 Hōmalamba . . . | | 7 Āśvina . |
| 3743 | 564 | 699 | 48 | | 641-42 | 32 Vilamba . . . | | ... |
| 3744 | 565 | 700 | 49 | | 642-43 | 33 Vikārin . . . | | ... |
| 3745 | 566 | 701 | 50 | | 643-44 | 34 Śārvarin . . . | | 5 Śrāvaṇa . |
| 3746 | 567 | 702 | 51 | | *644-45 | 35 Plava . . . | | ... |
| 3747 | 568 | 703 | 52 | | 645-46 | 36 Śubhakrit . . . | | ... |

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | | Kali. |
| Day and month A.D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 18 Mar. (77) | 4 Wed. | 17 33 18 | 28 Feb. (59) | 0 Sat. | 163-5560 | 596-8261 | 226-3577 | 3723 |
| 18 Mar. (77) | 5 Thur. | 23 45 27 | 18 Mar. (77) | 5 Thur. | 9859-6063 | 496-5279 | 274-9303 | 3724 |
| 19 Mar. (78) | 0 Sat. | 5 57 36 | 8 Mar. (67) | 3 Tues. | 73-9612 | 380-0635 | 246-8449 | 3725 |
| 18 Mar. (78) | 1 Sun. | 12 9 45 | 25 Feb. (56) | 0 Sat. | 9949-6840 | 227-3076 | 216-0218 | 3726 |
| 18 Mar. (77) | 2 Mon. | 18 21 54 | 15 Mar. (74) | 0 Fri. | 9984-3664 | 163-3011 | 267-3321 | 3727 |
| 19 Mar. (78) | 4 Wed. | 0 34 3 | 4 Mar. (63) | 3 Tues. | 9860-0892 | 10-5451 | 236-5089 | 3728 |
| 19 Mar. (78) | 5 Thur. | 6 46 12 | 22 Feb. (53) | 1 Sun. | 74-4441 | 894-0800 | 208-4235 | 3729 |
| 18 Mar. (78) | 6 Fri. | 12 58 21 | 12 Mar. (72) | 0 Sat. | 109-1265 | 830-0742 | 259-7340 | 3730 |
| 18 Mar. (77) | 0 Sat. | 19 10 30 | 2 Mar. (61) | 5 Thur.†† | 323-4813 | 713-6100 | 231-6485 | 3731 |
| 19 Mar. (78) | 2 Mon. | 1 22 39 | 19 Feb. (50) | 2 Mon. | 199-2041 | 560-8540 | 200-8252 | 3732 |
| 19 Mar. (78) | 3 Tues. | 7 34 47 | 9 Mar. (68) | 0 Sat. | 9895-2545 | 461-5558 | 249-3979 | 3733 |
| 18 Mar. (78) | 4 Wed. | 13 46 56 | 26 Feb. (57) | 4 Wed. | 9770-9774 | 307-7999 | 218-5748 | 3734 |
| 18 Mar. (77) | 5 Thur. | 19 59 5 | 16 Mar. (75) | 3 Tues. | 9805-6597 | 243-7934 | 269-8851 | 3735 |
| 19 Mar. (78) | 0 Sat. | 2 11 14 | 6 Mar. (65) | 1 Sun. | 20-0146 | 127-3290 | 241-0922 | 3736 |
| 19 Mar. (78) | 1 Sun. | 8 23 23 | 23 Feb. (54) | 5 Thur. | 9895-7375 | 974-5731 | 210-9765 | 3737 |
| 18 Mar. (78) | 2 Mon. | 14 35 32 | 13 Mar. (73) | 4 Wed. | 9930-4199 | 910-5666 | 262-2870 | 3738 |
| 18 Mar. (77) | 3 Tues. | 20 47 41 | 3 Mar. (62) | 2 Mon. | 144-7746 | 794-1023 | 234-2015 | 3739 |
| 19 Mar. (78) | 5 Thur. | 2 59 50 | 20 Feb. (51) | 6 Fri. | 20-4975 | 641-3463 | 203-3783 | 3740 |
| 19 Mar. (78) | 6 Fri. | 9 11 59 | 11 Mar. (70) | 5 Thur. | 55-1799 | 577-3398 | 254-6887 | 3741 |
| 18 Mar. (78) | 0 Sat. | 15 24 8 | 28 Feb. (59) | 2 Mon. | 9930-0027 | 424-5838 | 223-8655 | 3742 |
| 18 Mar. (77) | 1 Sun. | 21 36 17 | 18 Mar. (77) | 1 Sun. | 9965-5851 | 360-5774 | 275-1759 | 3743 |
| 19 Mar. (78) | 3 Tues. | 3 48 26 | 7 Mar. (66) | 5 Thur. | 9841-3081 | 207-8213 | 244-3527 | 3744 |
| 19 Mar. (78) | 4 Wed. | 10 0 35 | 25 Feb. (56) | 3 Tues. | 55-6628 | 91-3571 | 216-2673 | 3745 |
| 18 Mar. (78) | 5 Thur. | 16 12 44 | 15 Mar. (75) | 2 Mon. | 90-3451 | 27-3506 | 267-5776 | 3746 |
| 18 Mar. (77) | 6 Fri. | 22 24 53 | 4 Mar. (63) | 6 Fri. | 9966-0680 | 873-8747 | 236-7545 | 3747 |

†† See "Remarks," above, on page preceding the Table.

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|-----------------------------|---------------------|--|
| Kali. | Saka. | Chaitradi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3748 | 569 | 704 | 53 | | 646-47 | 37 Śōbhana . . . | | 4 Āshāḍha . |
| 3749 | 570 | 705 | 54 | | 647-48 | 38 Kr̥ṣḍhin . . . | | ... |
| 3750 | 571 | 706 | 55 | | *648-49 | 39 Viśvāvasu† . . . | | ... |
| 3751 | 572 | 707 | 56 | | 649-50 | 41 <i>Plavāṅga</i> . . . | | 2 Vaiśākha . |
| 3752 | 573 | 708 | 57 | | 650-51 | 42 <i>Kīlaka</i> . . . | | ... |
| 3753 | 574 | 709 | 58 | | 651-52 | 43 <i>Saumya</i> . . . | | 6 Bhādrapada. |
| 3754 | 575 | 710 | 59 | | *352-53 | 44 <i>Sādhāraṇa</i> . . . | | ... |
| 3755 | 576 | 711 | 60 | | 653-54 | 45 <i>Virōdhakṛit</i> . . . | | ... |
| 3756 | 577 | 712 | 61 | | 654-55 | 46 Paridhāvin . . . | | 4 Āshāḍha . |
| 3757 | 578 | 713 | 62 | | 655-56 | 47 Pramādin . . . | | ... |
| 3758 | 579 | 714 | 63 | | *656-57 | 48 Ānanda . . . | | ... |
| 3759 | 580 | 715 | 64 | | 657-58 | 49 Rākshasa . . . | | 3 Jyēshṭha . |
| 3760 | 581 | 716 | 65 | | 658-59 | 50 Anala . . . | | ... |
| 3761 | 582 | 717 | 66 | | 659-60 | 51 Piṅgala . . . | | 7 Āvina . |
| 3762 | 583 | 718 | 67 | | *660-61 | 52 Kālayukta . . . | | ... |
| 3763 | 584 | 719 | 68 | | 661-62 | 53 Siddhārthin . . . | | ... |
| 3764 | 585 | 720 | 69 | | 662-63 | 54 Raudra . . . | | 5 Śrāvaṇa . |
| 3765 | 586 | 721 | 70 | | 663-64 | 55 Durmati . . . | | ... |
| 3766 | 587 | 722 | 71 | | *664-65 | 56 Dundubhi . . . | | ... |
| 3767 | 588 | 723 | 72 | | 665-66 | 57 Rudhīrōdgārin . . . | | 4 Āshāḍha |
| 3768 | 589 | 724 | 73 | | 666-67 | 58 Raktāksha . . . | | ... |
| 3769 | 590 | 725 | 74 | | 667-68 | 59 Krōdhana . . . | | ... |
| 3770 | 591 | 726 | 75 | | *668-69 | 60 Kshaya . . . | | 1 Chaitra |
| 3771 | 592 | 727 | 76 | | 669-70 | 1 Prabhava . . . | | ... |
| 3772 | 593 | 728 | 77 | | 670-71 | 2 Vibhava . . . | | 5 Śrāvaṇa . |

† 40 Parābhava was suppressed.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-saṁkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 19 Mar. (78) | 1 Sun. . | 4 37 2 | 22 Feb. (53) | 4 Wed. | 180-4229 | 758-1223 | 208-6691 | 3748 |
| 19 Mar. (78) | 2 Mon. | 10 49 11 | 13 Mar. (72) | 3 Tues. | 215-1052 | 694-1237 | 259-9795 | 3749 |
| 18 Mar. (78) | 3 Tues. | 17 1 20 | 1 Mar. (61) | 0 Sat. . | 90-8281 | 541-3679 | 229-1662 | 3750 |
| 18 Mar. (77) | 4 Wed. | 23 13 29 | 18 Feb. (49) | 4 Wed. | 9966-5509 | 388-6119 | 198-3330 | 3751 |
| 19 Mar. (78) | 6 Fri. . | 5 25 38 | 9 Mar. (68) | 3 Tues. | 1-2333 | 324-6053 | 249-6435 | 3752 |
| 19 Mar. (78) | 0 Sat. . | 11 37 47 | 26 Feb. (57) | 0 Sat. . | 9876-9561 | 171-8494 | 218-8203 | 3753 |
| 18 Mar. (78) | 1 Sun. . | 17 49 56 | 16 Mar. (76) | 6 Fri. . | 9911-6385 | 107-8429 | 270-1306 | 3754 |
| 19 Mar. (78) | 3 Tues. | 0 2 5 | 6 Mar. (65) | 4 Wed. | 125-9934 | 991-3786 | 242-0453 | 3755 |
| 19 Mar. (78) | 4 Wed. | 6 14 14 | 23 Feb. (54) | 1 Sun. . | 1-7162 | 838-6227 | 211-2221 | 3756 |
| 19 Mar. (78) | 5 Thur. | 12 26 23 | 14 Mar. (73) | 0 Sat. . | 36-3986 | 774-6161 | 262-5325 | 3757 |
| 18 Mar. (78) | 6 Fri. . | 18 38 32 | 3 Mar. (63) | 5 Thur. | 250-7534 | 658-1518 | 234-4470 | 3758 |
| 19 Mar. (78) | 1 Sun. | 0 50 41 | 20 Feb. (51) | 2 Mon. | 126-5803 | 505-3958 | 203-6238 | 3759 |
| 19 Mar. (78) | 2 Mon. . | 7 2 50 | 10 Mar. (69) | 0 Sat. . | 9822-5266 | 405-0977 | 262-1965 | 3760 |
| 19 Mar. (78) | 3 Tues. . | 13 14 59 | 28 Feb. (59) | 5 Thur. | 36-8815 | 288-6334 | 224-1110 | 3761 |
| 18 Mar. (78) | 4 Wed. | 19 27 8 | 17 Mar. (77) | 3 Tues. | 9732-9319 | 188-3353 | 272-6836 | 3762 |
| 19 Mar. (78) | 6 Fri. . | 1 39 17 | 7 Mar. (66) | 1 Sun. . | 9947-2867 | 71-8709 | 244-5982 | 3763 |
| 19 Mar. (78) | 0 Sat. . | 7 51 26 | 25 Feb. (56) | 6 Fri. . | 161-6415 | 955-4066 | 216-5129 | 3764 |
| 19 Mar. (78) | 1 Sun. . | 14 3 35 | 16 Mar. (75) | 5 Thur. | 196-2239 | 891-4001 | 267-8232 | 3765 |
| 18 Mar. (78) | 2 Mon. | 20 15 44 | 4 Mar. (64) | 2 Mon. | 72-0468 | 738-6441 | 237-0000 | 3766 |
| 19 Mar. (78) | 4 Wed. . | 2 27 53 | 21 Feb. (52) | 6 Fri. . | 9947-7696 | 585-8882 | 206-1768 | 3767 |
| 19 Mar. (78) | 5 Thur. | 8 40 2 | 12 Mar. (71) | 5 Thur. | 9982-6410 | 521-8817 | 257-4873 | 3768 |
| 19 Mar. (78) | 6 Fri. . | 14 52 11 | 1 Mar. (60) | 2 Mon. | 9858-1749 | 369-1257 | 226-6640 | 3769 |
| 18 Mar. (78) | 0 Sat. . | 21 4 20 | 18 Feb. (49) | 6 Fri. . | 9733-8977 | 216-3699 | 195-8407 | 3770 |
| 19 Mar. (78) | 2 Mon. | 3 16 29 | 8 Mar. (67) | 5 Thur. | 9768-5801 | 152-5632 | 247-1512 | 3771 |
| 19 Mar. (78) | 3 Tues. | 9 28 38 | 26 Feb. (57) | 3 Tues. | 9982-9349 | 35-8889 | 219-0659 | 3772 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i> and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3773 | 594 | 729 | 78 | | 671-72 | 3 Śukla . . . | | ... |
| 3774 | 595 | 730 | 79 | | *672-73 | 4 Pramōda . . . | | ... |
| 3775 | 596 | 731 | 80 | | 673-74 | 5 Prajāpati . . . | | 4 Āshāḍha . |
| 3776 | 597 | 732 | 81 | | 674-75 | 6 Āngirasa . . . | | ... |
| 3777 | 598 | 733 | 82 | | 675-76 | 7 Śrīmukha . . . | | ... |
| 3778 | 599 | 734 | 83 | | *676-77 | 8 Bhāva . . . | | 2 Vaiśākha . |
| 3779 | 600 | 735 | 84 | | 677-78 | 9 Yuvan . . . | | ... |
| 3780 | 601 | 736 | 85 | | 678-79 | 10 Dhātṛi . . . | | 7 Āsvina . |
| 3781 | 602 | 737 | 86 | | 679-80 | 11 Īvara . . . | | ... |
| 3782 | 603 | 738 | 87 | | *680-81 | 12 Bahudhānya . . . | | ... |
| 3783 | 604 | 739 | 88 | | 681-82 | 13 Pramāthin . . . | | 5 Śrāvaṇa . |
| 3784 | 605 | 740 | 89 | | 682-83 | 14 Vikrama . . . | | ... |
| 3785 | 606 | 741 | 90 | | 683-84 | 15 Vṛisha . . . | | ... |
| 3786 | 607 | 742 | 91 | | *684-85 | 16 Chitrabhānu . . . | | 3 Jyēṣṭha . |
| 3787 | 608 | 743 | 92 | | 685-86 | 17 Subhānu . . . | | ... |
| 3788 | 609 | 744 | 93 | | 686-87 | 18 Tāraṇa . . . | | ... |
| 3789 | 610 | 745 | 94 | | 687-88 | 19 Pārthiva . . . | | 1 Chaitra . |
| 3790 | 611 | 746 | 95 | | *688-89 | 20 Vijaya . . . | | ... |
| 3791 | 612 | 747 | 96 | | 689-90 | 21 Sarvajit . . . | | 5 Śrāvaṇa . |
| 3792 | 613 | 748 | 97 | | 690-91 | 22 Sarvadhārin . . . | | ... |
| 3793 | 614 | 749 | 98 | | 691-92 | 23 Virōdhin . . . | | ... |
| 3794 | 615 | 750 | 99 | | *692-93 | 24 Vikṛta . . . | | 4 Āshāḍha . |
| 3795 | 616 | 751 | 100 | | 693-94 | 25 Khara . . . | | ... |
| 3796 | 617 | 752 | 101 | | 694-95 | 26 Nandana . . . | | ... |
| 3797 | 618 | 753 | 102 | | 695-96 | 27 Vijaya . . . | | 2 Vaiśākha . |

LXXXH—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-saṁkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 19 Mar. (78) | 4 Wed. | 15 40 47 | 17 Mar. (76) | 2 Mon. | 17-6173 | 971-8924 | 270-3762 | 3773 |
| 18 Mar. (78) | 5 Thur. | 21 52 56 | 6 Mar. (66) | 0 Sat. | 231-9621 | 855-4281 | 242-2907 | 3774 |
| 19 Mar. (78) | 0 Sat. | 4 5 5 | 23 Feb. (54) | 4 Wed. | 107-6950 | 702-6722 | 211-4676 | 3775 |
| 19 Mar. (78) | 1 Sun. | 10 17 14 | 14 Mar. (73) | 3 Tues. | 142-3774 | 628-6656 | 262-7781 | 3776 |
| 19 Mar. (78) | 2 Mon. | 16 29 23 | 3 Mar. (62) | 0 Sat. | 18-1001 | 485-9097 | 231-9548 | 3777 |
| 18 Mar. (78) | 3 Tues. | 22 41 31 | 20 Feb. (51) | 4 Wed. | 9893-8230 | 333-1537 | 201-1315 | 3778 |
| 19 Mar. (78) | 5 Thur. | 4 53 40 | 10 Mar. (69) | 3 Tues. | 9928-5054 | 269-1472 | 252-4420 | 3779 |
| 19 Mar. (78) | 6 Fri. | 11 5 49 | 27 Feb. (58) | 0 Sat. | 9804-2283 | 116-3913 | 221-6188 | 3780 |
| 19 Mar. (78) | 0 Sat. | 17 17 58 | 18 Mar. (77) | 6 Fri. | 9838-9106 | 52-4848 | 272-9202 | 3781 |
| 18 Mar. (78) | 1 Sun. | 23 30 7 | 7 Mar. (67) | 4 Wed. | 53-2655 | 935-9205 | 244-8437 | 3782 |
| 19 Mar. (78) | 3 Tues. | 5 42 16 | 25 Feb. (56) | 2 Mon. | 267-6203 | 819-4561 | 216-7584 | 3783 |
| 19 Mar. (78) | 4 Wed. | 11 54 25 | 16 Mar. (75) | 1 Sun. | 302-3027 | 755-4406 | 268-0688 | 3784 |
| 19 Mar. (78) | 5 Thur. | 18 6 34 | 5 Mar. (64) | 5 Thur. | 178-0255 | 602-6936 | 237-5456 | 3785 |
| 19 Mar. (79) | 0 Sat. | 0 18 43 | 22 Feb. (53) | 2 Mon. | 53-7384 | 449-9378 | 206-4223 | 3786 |
| 19 Mar. (78) | 1 Sun. | 6 30 52 | 12 Mar. (71) | 1 Sun. | 88-4308 | 385-9312 | 257-7328 | 3787 |
| 19 Mar. (78) | 2 Mon. | 12 43 1 | 1 Mar. (60) | 5 Thur. | 9964-1536 | 233-1752 | 227-1096 | 3788 |
| 19 Mar. (78) | 3 Tues. | 18 55 10 | 18 Feb. (49) | 2 Mon. | 9839-8765 | 80-4194 | 196-0863 | 3789 |
| 19 Mar. (79) | 5 Thur. | 1 7 19 | 8 Mar. (68) | 1 Sun. | 9874-5589 | 16-4127 | 247-3967 | 3790 |
| 19 Mar. (78) | 6 Fri. | 7 19 28 | 26 Feb. (57) | 6 Fri. | 88-9137 | 899-9484 | 219-3114 | 3791 |
| 19 Mar. (78) | 0 Sat. | 13 31 37 | 17 Mar. (76) | 5 Thur. | 123-5960 | 835-9419 | 270-6218 | 3792 |
| 19 Mar. (78) | 1 Sun. | 19 43 46 | 6 Mar. (65) | 2 Mon. | 9999-3189 | 683-1860 | 239-7986 | 3793 |
| 19 Mar. (79) | 3 Tues. | 1 55 55 | 24 Feb. (55) | 0 Sat. | 213-6738 | 566-7217 | 211-7131 | 3794 |
| 19 Mar. (78) | 4 Wed. | 8 8 4 | 13 Mar. (72) | 5 Thur. | 9909-7241 | 466-4235 | 260-1858 | 3795 |
| 19 Mar. (78) | 5 Thur. | 14 20 13 | 2 Mar. (61) | 2 Mon. | 9785-4470 | 313-6675 | 229-4626 | 3796 |
| 19 Mar. (78) | 6 Fri. | 20 32 22 | 20 Feb. (51) | 0 Sat. | 9999-8018 | 197-2632 | 201-3771 | 3797 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3798 | 619 | 754 | 103 | | *696-97 | 28 Jaya | | ... |
| 3799 | 620 | 755 | 104 | | 697-98 | 29 Manmatha | | 6 Bhādrapada |
| 3800 | 621 | 756 | 105 | | 698-99 | 30 Durmukha | | ... |
| 3801 | 622 | 757 | 106 | | 699-700 | 31 Hēmalamba | | ... |
| 3802 | 623 | 758 | 107 | | *700-70 | 32 Vilamba | | 5 Śrāvaṇa . |
| 3803 | 624 | 759 | 108 | | 701-02 | 33 Vikārin | | ... |
| 3804 | 625 | 760 | 109 | | 702-03 | 34 Śārvarin | | ... |
| 3805 | 626 | 761 | 110 | | 703-04 | 35 Plava | | 3 Jyēṣṭha . |
| 3806 | 627 | 762 | 111 | | *704-05 | 36 Śubhakrit | | ... |
| 3807 | 628 | 763 | 112 | | 705-06 | 37 Sōbhana | | ... |
| 3808 | 629 | 764 | 113 | | 706-07 | 38 Krōdhin | | 1 Chaitra . |
| 3809 | 630 | 765 | 114 | | 707-08 | 39 Viśvāvasu | | ... |
| 3810 | 631 | 766 | 115 | | *708-09 | 40 Parābhava | | 5 Śrāvaṇa . |
| 3811 | 632 | 767 | 116 | | 709-10 | 41 Plavaṅga | | ... |
| 3812 | 633 | 768 | 117 | | 710-11 | 42 Kilaka | | ... |
| 3813 | 634 | 769 | 118 | | 711-12 | 43 Saumya | | 4 Āshāḍha . |
| 3814 | 635 | 770 | 119 | | *712-13 | 44 Sādhāraṇa | | ... |
| 3815 | 636 | 771 | 120 | | 713-14 | 45 Virōdhakrit | | ... |
| 3816 | 637 | 772 | 121 | | 714-15 | 46 Paridhāvin | | 2 Vaiśākha . |
| 3817 | 638 | 773 | 122 | | 715-16 | 47 Pramādin | | ... |
| 3818 | 639 | 774 | 123 | | *716-17 | 48 Ānanda | | 6 Bhādrapada |
| 3819 | 640 | 775 | 124 | | 717-18 | 49 Rākshasa | | ... |
| 3820 | 641 | 776 | 125 | | 718-19 | 50 Anala | | ... |
| 3821 | 642 | 777 | 126 | | 719-20 | 51 Piṅgala | | 5 Śrāvaṇa . |
| 3822 | 643 | 778 | 127 | | *720-21 | 52 Kālayukta | | ... |

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|--------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-sam-krānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 19 Mar. (79) | 1 Sun. | 2 44 31 | 10 Mar. (70) | 6 Fri. | 34-4841 | 133-1067 | 252-6875 | 3798 |
| 19 Mar. (78) | 2 Mon. | 8 56 40 | 27 Feb. (58) | 3 Tues. | 0910-2070 | 980-4408 | 221-8643 | 3799 |
| 19 Mar. (78) | 3 Tues. | 15 8 49 | 18 Mar. (77) | 2 Mon. | 9944-8894 | 916-4343 | 273-1748 | 3800 |
| 19 Mar. (78) | 4 Wed. | 21 20 58 | 8 Mar. (67) | 0 Sat. | 159-2443 | 799-9700 | 245-0671 | 3801 |
| 19 Mar. (79) | 6 Fri. | 3 33 7 | 25 Feb. (56) | 4 Wed. | 34-9671 | 647-2140 | 214-2440 | 3802 |
| 19 Mar. (78) | 0 Sat. | 9 45 16 | 15 Mar. (74) | 3 Tues. | 69-6496 | 583-2074 | 265-5543 | 3803 |
| 19 Mar. (78) | 1 Sun. | 15 57 25 | 4 Mar. (63) | 0 Sat. | 9945-3723 | 430-4516 | 234-7311 | 3804 |
| 19 Mar. (78) | 2 Mon. | 22 9 34 | 21 Feb. (52) | 4 Wed. | 9821-0852 | 277-6956 | 203-9079 | 3805 |
| 19 Mar. (79) | 4 Wed. | 4 21 43 | 11 Mar. (71) | 3 Tues. | 9855-7776 | 213-6890 | 255-2184 | 3806 |
| 19 Mar. (78) | 5 Thur. | 10 33 52 | 1 Mar. (60) | 1 Sun. | 70-1324 | 97-2248 | 227-1329 | 3807 |
| 19 Mar. (78) | 6 Fri. | 16 46 1 | 18 Feb. (49) | 5 Thur. | 9946-0956 | 944-4986 | 196-3096 | 3808 |
| 19 Mar. (78) | 0 Sat. | 22 58 10 | 9 Mar. (68) | 4 Wed. | 9980-5376 | 880-4623 | 247-6201 | 3809 |
| 19 Mar. (79) | 2 Mon. | 5 10 19 | 27 Feb. (58) | 2 Mon. | 194-8924 | 773-9979 | 219-5348 | 3810 |
| 19 Mar. (78) | 3 Tues. | 11 22 28 | 17 Mar. (76) | 1 Sun. | 230-5748 | 699-0914 | 270-8451 | 3811 |
| 19 Mar. (78) | 4 Wed. | 17 34 37 | 6 Mar. (65) | 5 Thur. | 105-2977 | 547-2355 | 240-0210 | 3812 |
| 19 Mar. (78) | 5 Thur. | 23 46 46 | 23 Feb. (54) | 2 Mon. | 9981-0206 | 394-4796 | 209-1987 | 3813 |
| 19 Mar. (79) | 0 Sat. | 5 58 55 | 13 Mar. (73) | 1 Sun. | 15-7029 | 330-4730 | 260-5092 | 3814 |
| 19 Mar. (78) | 1 Sun. | 12 11 4 | 2 Mar. (61) | 5 Thur. | 9891-4258 | 178-7171 | 229-6859 | 3815 |
| 19 Mar. (78) | 2 Mon. | 18 23 13 | 20 Feb. (51) | 3 Tues. | 105-7806 | 61-2528 | 201-6004 | 3816 |
| 20 Mar. (79) | 4 Wed. | 0 35 22 | 11 Mar. (70) | 2 Mon. | 140-4629 | 997-2402 | 252-9100 | 3817 |
| 19 Mar. (79) | 5 Thur. | 6 47 31 | 28 Feb. (59) | 6 Fri. | 16-1858 | 844-4903 | 222-0877 | 3818 |
| 19 Mar. (78) | 6 Fri. | 12 59 40 | 18 Mar. (77) | 5 Thur. | 50-8682 | 780-4838 | 273-3981 | 3819 |
| 19 Mar. (78) | 0 Sat. | 19 11 49 | 8 Mar. (67) | 3 Tues. | 265-2231 | 664-0195 | 245-3126 | 3820 |
| 20 Mar. (79) | 2 Mon. | 1 23 58 | 25 Feb. (56) | 0 Sat. | 140-9458 | 511-2635 | 214-4895 | 3821 |
| 19 Mar. (79) | 3 Tues. | 7 36 7 | 14 Mar. (74) | 5 Thur. | 9836-9963 | 410-9654 | 263-0622 | 3822 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>k-haya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SĀMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3823 | 644 | 779 | 128 | | 721-22 | 53 Siddhārthin . . . | | ... |
| 3824 | 645 | 780 | 129 | | 722-23 | 54 Raudra . . . | | 3 Jyēshtha |
| 3825 | 646 | 781 | 130 | | 723-24 | 55 Durmati . . . | | ... |
| 3826 | 647 | 782 | 131 | | *724-25 | 56 Dundubhi . . . | { 7 Āsvina
9 Mārgaś : (<i>keś</i>) } | |
| 3827 | 648 | 783 | 132 | | 725-26 | 57 Rudhirōdgārin . . . | | 1 Chaitra . |
| 3828 | 649 | 784 | 133 | | 726-27 | 58 Raktāksha . . . | | ... |
| 3829 | 650 | 785 | 134 | | 727-28 | 59 Krōdhana . . . | | 5 Śrāvana . |
| 3830 | 651 | 786 | 135 | | *728-29 | 60 Kshaya . . . | | ... |
| 3831 | 652 | 787 | 136 | | 729-30 | 1 Prabhava . . . | | ... |
| 3832 | 653 | 788 | 137 | | 730-31 | 2 Vibhava . . . | | 4 Āshāḍha |
| 3833 | 654 | 789 | 138 | | 731-32 | 3 Śukla . . . | | ... |
| 3834 | 655 | 790 | 139 | | *732-33 | 4 Pramōda . . . | | ... |
| 3835 | 656 | 791 | 140 | | 733-34 | 5 Prajāpati . . . | | 2 Vaiśākha . |
| 3836 | 657 | 792 | 141 | | 734-35 | 6 Āngirasa† . . . | | ... |
| 3837 | 658 | 793 | 142 | | 735-36 | 8 Bhāva . . . | | 6 Bhādrapada |
| 3838 | 659 | 794 | 143 | | *736-37 | 9 Yuvan . . . | | ... |
| 3839 | 660 | 795 | 144 | | 737-38 | 10 Dhātṛi . . . | | ... |
| 3840 | 661 | 796 | 145 | | 738-39 | 11 Iśvara . . . | | 5 Śrāvana . |
| 3841 | 662 | 797 | 146 | | 739-40 | 12 Bahudhānya . . . | | ° ... |
| 3842 | 663 | 798 | 147 | | *740-41 | 13 Pramāthin . . . | | ... |
| 3843 | 664 | 799 | 148 | | 741-42 | 14 Vikrama . . . | | 3 Jyēshtha . |
| 3844 | 665 | 800 | 149 | | 742-43 | 15 Vṛisha . . . | | ... |
| 3845 | 666 | 801 | 150 | | 743-44 | 16 Chitrabhānu . . . | { 7 Āsvina
11 Māgha (<i>keś</i>) } | |
| 3846 | 667 | 802 | 151 | | *744-45 | 17 Subhānu . . . | | 1 Chaitra . |
| 3847 | 668 | 803 | 152 | | 745-46 | 18 Tārana . . . | | ... |

† 7 Śrīmukha was suppressed.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|--------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-sam-krānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 19 Mar. (78) | 4 Wed. | 13 48 15 | 4 Mar. (63) | 3 Tues. | 51-3511 | 294-5011 | 234-9767 | 3823 |
| 19 Mar. (78) | 5 Thur. | 20 0 24 | 21 Feb. (52) | 0 Sat. | 9927-0739 | 141-7452 | 204-1534 | 3824 |
| 20 Mar. (79) | 0 Sat. | 2 12 33 | 12 Mar. (71) | 6 Fri. | 9061-7503 | 77-7335 | 255-4693 | 3825 |
| 19 Mar. (79) | 1 Sun. | 8 24 42 | 1 Mar. (61) | 4 Wed. | 176-1112 | 961-2743 | 227-3785 | 3826 |
| 19 Mar. (78) | 2 Mon. | 14 36 51 | 18 Feb. (49) | 1 Sun. | 51-8342 | 808-5184 | 196-5552 | 3827 |
| 19 Mar. (78) | 3 Tues. | 20 49 0 | 9 Mar. (68) | 0 Sat. | 86-5163 | 744-5118 | 247-8656 | 3828 |
| 20 Mar. (79) | 5 Thur. | 3 1 9 | 26 Feb. (57) | 4 Wed. | 9962-2392 | 591-7559 | 217-0425 | 3829 |
| 19 Mar. (79) | 6 Fri. | 9 13 18 | 16 Mar. (76) | 3 Tues. | 9996-9216 | 527-7493 | 268-3529 | 3830 |
| 19 Mar. (78) | 0 Sat. | 15 25 27 | 5 Mar. (64) | 0 Sat. | 9872-6444 | 374-9934 | 237-5297 | 3831 |
| 19 Mar. (78) | 1 Sun. | 21 37 36 | 22 Feb. (53) | 4 Wed. | 9748-3673 | 222-2374 | 206-7064 | 3832 |
| 20 Mar. (79) | 3 Tues. | 3 49 45 | 13 Mar. (72) | 3 Tues. | 9783-0497 | 158-2309 | 258-0169 | 3833 |
| 19 Mar. (79) | 4 Wed. | 10 1 54 | 2 Mar. (62) | 1 Sun. | 9997-4046 | 41-7666 | 229-9215 | 3834 |
| 19 Mar. (78) | 5 Thur. | 16 14 3 | 20 Feb. (51) | 6 Fri. | 211-7493 | 925-3023 | 201-8460 | 3835 |
| 19 Mar. (78) | 6 Fri. | 22 26 12 | 11 Mar. (70) | 5 Thur. | 246-4417 | 861-2958 | 253-1564 | 3836 |
| 20 Mar. (79) | 1 Sun. | 4 38 21 | 28 Feb. (59) | 2 Mon. | 122-1646 | 708-5398 | 222-3332 | 3837 |
| 19 Mar. (79) | 2 Mon. | 10 50 30 | 18 Mar. (78) | 1 Sun. | 156-8460 | 644-5333 | 274-6437 | 3838 |
| 19 Mar. (78) | 3 Tues. | 17 2 39 | 7 Mar. (66) | 5 Thur. | 32-5698 | 501-7773 | 242-8204 | 3839 |
| 19 Mar. (78) | 4 Wed. | 23 14 48 | 24 Feb. (55) | 2 Mon. | 9908-2926 | 339-0214 | 211-9973 | 3840 |
| 20 Mar. (79) | 6 Fri. | 5 26 57 | 15 Mar. (74) | 1 Sun. | 9942-9751 | 275-0149 | 263-2077 | 3841 |
| 19 Mar. (79) | 0 Sat. | 11 39 6 | 3 Mar. (63) | 5 Thur. | 9818-6978 | 122-2588 | 232-4845 | 3842 |
| 19 Mar. (78) | 1 Sun. | 17 51 15 | 21 Feb. (52) | 3 Tues. | 33-0527 | 5-7947 | 204-3990 | 3843 |
| 20 Mar. (79) | 3 Tues. | 0 3 24 | 12 Mar. (71) | 2 Mon. | 67-7351 | 941-7880 | 255-7105 | 3844 |
| 20 Mar. (79) | 4 Wed. | 6 15 33 | 2 Mar. (61) | 0 Sat. | 282-0900 | 825-3238 | 227-6240 | 3845 |
| 19 Mar. (79) | 5 Thur. | 12 27 42 | 19 Feb. (50) | 4 Wed. | 157-8127 | 672-5678 | 196-8007 | 3846 |
| 19 Mar. (78) | 6 Fri. | 18 39 51 | 9 Mar. (68) | 3 Tues. | 192-4951 | 608-5613 | 248-1112 | 3847 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kalī. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3848 | 669 | 804 | 153 | | 746-47 | 19 Pārthiva . . . | | 5 Śrāvaṇa . |
| 3849 | 670 | 805 | 154 | | 747-48 | 20 Vyaya . . . | | ... |
| 3850 | 671 | 806 | 155 | | *748-49 | 21 Sarvajit . . . | | ... |
| 3851 | 672 | 807 | 156 | | 749-50 | 22 Sarvadhārin . . . | | 3 Jyēshṭha . |
| 3852 | 673 | 808 | 157 | | 750-51 | 23 Virōdhin . . . | | ... |
| 3853 | 674 | 809 | 158 | | 751-52 | 24 Vikṛita . . . | | ... |
| 3854 | 675 | 810 | 159 | | *752-53 | 25 Khara . . . | | 2 Vaiśākha . |
| 3855 | 676 | 811 | 160 | | 753-54 | 26 Nandana . . . | | ... |
| 3856 | 677 | 812 | 161 | | 754-55 | 27 Vijaya . . . | | 6 Bhādrapada |
| 3857 | 678 | 813 | 162 | | 755-56 | 28 Jaya . . . | | ... |
| 3858 | 679 | 814 | 163 | | *756-57 | 29 Manmatha . . . | | ... |
| 3859 | 680 | 815 | 164 | | 757-58 | 30 Durmukha . . . | | 4 Āshāḍha . |
| 3860 | 681 | 816 | 165 | | 758-59 | 31 Hēmalamba . . . | | ... |
| 3861 | 682 | 817 | 166 | | 759-60 | 32 Vilamba . . . | | ... |
| 3862 | 683 | 818 | 167 | | *760-61 | 33 Vikārin . . . | | 3 Jyēshṭha |
| 3863 | 684 | 819 | 168 | | 761-62 | 34 Śārvarin . . . | | ... |
| 3864 | 685 | 820 | 169 | | 762-63 | 35 Plava . . . | | 7 Āvina . |
| 3865 | 686 | 821 | 170 | | 763-64 | 36 Śubhakṛit . . . | | ... |
| 3866 | 687 | 822 | 171 | | *764-65 | 37 Śōbhana . . . | | ... |
| 3867 | 688 | 823 | 172 | | 765-66 | 38 Krōdhin . . . | | 5 Śrāvaṇa |
| 3868 | 689 | 824 | 173 | | 766-67 | 39 Viśvāvasu . . . | | ... |
| 3869 | 690 | 825 | 174 | | 767-68 | 40 Parābhava . . . | | ... |
| 3870 | 691 | 826 | 175 | | *768-69 | 41 Plavaṅga . . . | | 3 Jyēshṭha |
| 3871 | 692 | 827 | 176 | | 769-70 | 42 Kṛlaka . . . | | ... |
| 3872 | 693 | 828 | 177 | | 770-71 | 43 Saumya . . . | | ... |

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| Royal Society of Antiquaries, Ireland, 17, Highfield Road, Rathgar, Dublin. | Smithsonian Institution, Washington, D. C., U. S. A. |
| Institut de France, Paris. | Harvard University Library, Cambridge, Boston, Massachusetts, U. S. A. |
| Conservateur du Musée Guimet, Paris. | Vajirana National Library, Bangkok. |
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| | Public Library, New South Wales, Sydney. |

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| University Library, ditto. | Bangiya Sahitya Parishad Sabha, Calcutta. |
| Presidency College Library, ditto. | Chaitanya Library, 4-1, Beadon Street, Calcutta. |
| Christian College Library, ditto. | Mahabodhi Society, Baniapooker Lane, Calcutta. |
| Literary and Scientific Society, ditto. | Scottish Churches College Library, Calcutta. |
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| University Library, ditto. | Chittagong College Library, Chittagong. |
| Anandaswam Sanakrit Series, Poona City. | Rajshahi College Library, Rajshahi. |
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| Secretariat Library, Calcutta. | Varendra Research Society, Rajshahi. |
| Indian Museum, ditto. | Secretariat Library, Bihar and Orissa. |
| University Library, ditto. | Patna College Library, Bankipore. |
| Sanskrit College Library, Calcutta. | Agra College Library, Agra. |
| Presidency College Library, ditto. | Muir Central College Library, Allahabad. |
| Asiatic Society of Bengal, ditto. | Panini Office, Allahabad. |
| Secretariat Library, Allahabad. | Central Hindu College Library, Benares. |
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| Government College Library, Rajahmundry. | Library of the Resident at Baroda. |
| Maharajah's College Library, Trivandrum. | Baroda Museum Library, Baroda. |
| Sanskrit College Library, Tiruvadi (Tanjore). | Gwalior Darbar Library, Gwalior. |
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LXXXII—*Contd.*

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|--------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-sam-krānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 20 Mar. (79) | 1 Sun. . | 0 52 0 | 26 Feb. (57) | 0 Sat. . | 68-2180 | 455-8054 | 217-2881 | 3848 |
| 20 Mar. (79) | 2 Mon. | 7 4 9 | 17 Mar. (76) | 6 Fri. . | 102-9003 | 391-7988 | 268-4984 | 3849 |
| 19 Mar. (79) | 3 Tues. | 13 16 18 | 5 Mar. (65) | 3 Tues. | 9978-6232 | 239-0429 | 237-7752 | 3850 |
| 19 Mar. (78) | 4 Wed. | 19 28 27 | 22 Feb. (53) | 0 Sat. . | 9854-3461 | 86-2869 | 206-9520 | 3851 |
| 20 Mar. (79) | 6 Fri. . | 1 40 36 | 13 Mar. (72) | 6 Fri. . | 9889-0285 | 22-2804 | 258-2625 | 3852 |
| 20 Mar. (79) | 0 Sat. . | 7 52 45 | 3 Mar. (62) | 4 Wed. | 103-3833 | 905-8161 | 230-1770 | 3853 |
| 19 Mar. (79) | 1 Sun. . | 14 4 54 | 21 Feb. (52) | 2 Mon. | 317-7384 | 789-3518 | 202-0915 | 3854 |
| 19 Mar. (78) | 2 Mon. | 20 17 3 | 10 Mar. (69) | 0 Sat. . | 13-7885 | 689-0537 | 250-6642 | 3855 |
| 20 Mar. (79) | 4 Wed. | 2 29 12 | 28 Feb. (59) | 5 Thur. | 228-1433 | 572-5804 | 222-5788 | 3856 |
| 20 Mar. (79) | 5 Thur. | 8 41 21 | 18 Mar. (77) | 3 Tues. | 9924-1937 | 472-2911 | 271-1514 | 3857 |
| 19 Mar. (79) | 6 Fri. . | 14 53 30 | 6 Mar. (66) | 0 Sat. . | 9799-9166 | 319-5352 | 240-3282 | 3858 |
| 19 Mar. (78) | 0 Sat. . | 21 5 39 | 24 Feb. (55) | 5 Thur. | 14-2714 | 203-0709 | 212-2428 | 3859 |
| 20 Mar. (79) | 2 Mon. | 3 17 48 | 15 Mar. (74) | 4 Wed. | 48-9538 | 139-0644 | 263-5533 | 3860 |
| 20 Mar. (79) | 3 Tues. | 9 29 57 | 4 Mar. (63) | 1 Sun. . | 9924-6766 | 986-3084 | 232-7300 | 3861 |
| 19 Mar. (79) | 4 Wed. | 15 42 6 | 22 Feb. (53) | 6 Fri. . | 139-0315 | 869-8442 | 204-6445 | 3862 |
| 19 Mar. (78) | 5 Thur. | 21 54 15 | 12 Mar. (71) | 5 Thur. | 173-7138 | 805-8377 | 255-9550 | 3863 |
| 20 Mar. (79) | 0 Sat. . | 4 6 24 | 1 Mar. (60) | 2 Mon. | 49-4367 | 653-0816 | 225-1318 | 3864 |
| 20 Mar. (79) | 1 Sun. . | 10 18 33 | 20 Mar. (79) | 1 Sun. . | 84-1191 | 589-0751 | 276-4422 | 3865 |
| 19 Mar. (79) | 2 Mon. | 16 30 42 | 8 Mar. (68) | 5 Thur. | 9959-8420 | 436-3192 | 245-6189 | 3866 |
| 19 Mar. (78) | 3 Tues. | 22 42 51 | 25 Feb. (56) | 2 Mon. | 9835-5647 | 283-5633 | 214-7958 | 3867 |
| 20 Mar. (79) | 5 Thur. | 4 55 0 | 16 Mar. (75) | 1 Sun. . | 9870-2472 | 219-5567 | 206-1062 | 3868 |
| 20 Mar. (79) | 6 Fri. . | 11 7 8 | 6 Mar. (65) | 6 Fri. . | 84-6020 | 103-0923 | 238-0208 | 3869 |
| 19 Mar. (79) | 0 Sat. . | 17 19 17 | 23 Feb. (54) | 3 Tues. | 9960-3248 | 950-3365 | 207-1975 | 3870 |
| 19 Mar. (78) | 1 Sun. . | 23 31 26 | 13 Mar. (72) | 2 Mon. | 9905-0072 | 886-3299 | 258-5080 | 3871 |
| 20 Mar. (79) | 3 Tues. | 5 43 35 | 3 Mar. (62) | 0 Sat. . | 209-3621 | 769-8656 | 230-4226 | 3872 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(adhika) and
suppressed
(kshaya) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3873 | 694 | 829 | 178 | | 771-72 | 44 Sādhāraṇa . . . | | 2 Vaiśākha . |
| 3874 | 695 | 830 | 179 | | *772-73 | 45 Virōdhakṛit . . . | | ... |
| 3875 | 696 | 831 | 180 | | 773-74 | 46 Paridhāvin . . . | | 6 Bhādrapada |
| 3876 | 697 | 832 | 181 | | 774-75 | 47 Pramādin . . . | | ... |
| 3877 | 698 | 833 | 182 | | 775-76 | 48 Ānanda . . . | | ... |
| 3878 | 699 | 834 | 183 | | *776-77 | 49 Rākshasa . . . | | 4 Āshāḍha . |
| 3879 | 700 | 835 | 184 | | 777-78 | 50 Anala . . . | | ... |
| 3880 | 701 | 836 | 185 | | 778-79 | 51 Pīṅgala . . . | | ... |
| 3881 | 702 | 837 | 186 | | 779-80 | 52 Kālayukta . . . | | 3 Jyēshtha |
| 3882 | 703 | 838 | 187 | | *780-81 | 53 Siddhārthin . . . | | ... |
| 3883 | 704 | 839 | 188 | | 781-82 | 54 Raudra . . . | | 7 Āvina . |
| 3884 | 705 | 840 | 189 | | 782-83 | 55 Durmati . . . | | ... |
| 3885 | 706 | 841 | 190 | | 783-84 | 56 Dundubhi . . . | | ... |
| 3886 | 707 | 842 | 191 | | *784-85 | 57 Rudhirōdgārin . . . | | 5 Śrāvaṇa . |
| 3887 | 708 | 843 | 192 | | 785-86 | 58 Raktāksha . . . | | ... |
| 3888 | 709 | 844 | 193 | | 786-87 | 59 Krōdhana . . . | | ... |
| 3889 | 710 | 845 | 194 | | 787-88 | 60 Kshaya . . . | | 3 Jyēshtha . |
| 3890 | 711 | 846 | 195 | | *788-89 | 1 Prabhava . . . | | ... |
| 3891 | 712 | 847 | 196 | | 789-90 | 2 Vibhava . . . | | ... |
| 3892 | 713 | 848 | 197 | | 790-91 | 3 Śukla . . . | | 2 Vaiśākha . |
| 3893 | 714 | 849 | 198 | | 791-92 | 4 Pramōda . . . | | ... |
| 3894 | 715 | 850 | 199 | | *792-93 | 5 Prajāpati . . . | | 6 Bhādrapada |
| 3895 | 716 | 851 | 200 | | 793-94 | 6 Āṅgiras . . . | | ... |
| 3896 | 717 | 852 | 201 | | 794-95 | 7 Śrīmukha . . . | | ... |
| 3897 | 718 | 853 | 202 | | 795-96 | 8 Bhāva . . . | | 4 Āshāḍha . |

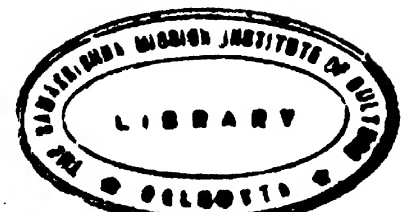
LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | |
| Day and month A. D. | Week-day. | Time of true Mēsha-saṁkrānti. | Day and month A. D. | Week-day. | a | b | c |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 |
| | | H. M. S. | | | | | |
| 20 Mar. (79) | 4 Wed. . | 11 55 44 | 20 Feb. (51) | 4 Wed. . | 75-0849 | 617-1097 | 199-5993 |
| 19 Mar. (79) | 5 Thur. . | 18 7 53 | 10 Mar. (70) | 3 Tues. . | 119-7672 | 553-1032 | 250-9097 |
| 20 Mar. (79) | 0 Sat. . | 0 20 2 | 27 Feb. (58) | 0 Sat. . | 9995-4901 | 400-3472 | 220-0806 |
| 20 Mar. (79) | 1 Sun. . | 6 32 11 | 18 Mar. (77) | 6 Fri. . | 30-1725 | 336-3306 | 271-3970 |
| 20 Mar. (79) | 2 Mon. . | 12 44 20 | 7 Mar. (66) | 3 Tues. . | 9905-8953 | 183-5848 | 240-5738 |
| 19 Mar. (79) | 3 Tues. . | 18 56 29 | 25 Feb. (56) | 1 Sun. . | 120-2501 | 67-1204 | 212-4883 |
| 20 Mar. (79) | 5 Thur. . | 1 8 38 | 15 Mar. (74) | 0 Sat. . | 154-9326 | 3-1139 | 263-7988 |
| 20 Mar. (79) | 6 Fri. . | 7 20 47 | 4 Mar. (63) | 4 Wed. . | 30-6554 | 850-3579 | 232-9756 |
| 20 Mar. (79) | 0 Sat. . | 13 32 56 | 22 Feb. (53) | 2 Mon. . | 245-0102 | 733-8937 | 204-8901 |
| 19 Mar. (79) | 1 Sun. . | 19 45 5 | 12 Mar. (72) | 1 Sun. . | 279-6928 | 669-8872 | 256-2005 |
| 20 Mar. (79) | 3 Tues. . | 1 57 14 | 1 Mar. (60) | 5 Thur. . | 155-4155 | 517-1311 | 225-3773 |
| 20 Mar. (79) | 4 Wed. . | 8 9 23 | 19 Mar. (78) | 3 Tues. . | 9851-4059 | 416-8330 | 273-9500 |
| 20 Mar. (79) | 5 Thur. . | 14 21 32 | 8 Mar. (67) | 0 Sat. . | 9727-1887 | 264-0770 | 243-1167 |
| 19 Mar. (79) | 6 Fri. . | 20 33 41 | 26 Feb. (57) | 5 Thur. . | 9941-5435 | 147-6128 | 215-0413 |
| 20 Mar. (79) | 1 Sun. . | 2 45 50 | 16 Mar. (75) | 4 Wed. . | 9976-2260 | 83-6062 | 266-3517 |
| 20 Mar. (79) | 2 Mon. . | 8 57 59 | 6 Mar. (65) | 2 Mon. . | 190-5807 | 967-1418 | 238-2664 |
| 20 Mar. (79) | 3 Tues. . | 15 10 8 | 23 Feb. (54) | 6 Fri. . | 66-3036 | 814-3852 | 207-4431 |
| 19 Mar. (79) | 4 Wed. . | 21 22 17 | 13 Mar. (73) | 5 Thur. . | 100-9860 | 750-3794 | 258-7535 |
| 20 Mar. (79) | 6 Fri. . | 3 34 26 | 2 Mar. (61) | 2 Mon. . | 9976-7089 | 597-6235 | 227-9303 |
| 20 Mar. (79) | 0 Sat. . | 9 46 35 | 19 Feb. (50) | 6 Fri. . | 9852-4317 | 444-8676 | 197-1071 |
| 20 Mar. (79) | 1 Sun. . | 15 58 44 | 10 Mar. (69) | 5 Thur. . | 9887-1140 | 380-8610 | 248-4175 |
| 19 Mar. (79) | 2 Mon. . | 22 10 53 | 27 Feb. (58) | 2 Mon. . | 9762-8369 | 228-1051 | 218-4943 |
| 20 Mar. (79) | 4 Wed. . | 4 23 2 | 17 Mar. (76) | 1 Sun. . | 9797-5192 | 164-0986 | 268-9047 |
| 20 Mar. (79) | 5 Thur. . | 10 35 11 | 7 Mar. (66) | 6 Fri. . | 11-8741 | 47-6342 | 240-8194 |
| 20 Mar. (79) | 6 Fri. . | 16 47 20 | 25 Feb. (56) | 4 Wed. . | 226-2289 | 931-1699 | 212-7339 |

Kali.

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x 2



TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(adhika) and
suppressed
(kshaya) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3898 | 719 | 854 | 203 | | *796-97 | 9 Yuvan . . . | | ... |
| 3899 | 720 | 855 | 204 | | 797-98 | 10 Dhātri . . . | | ... |
| 3900 | 721 | 856 | 205 | | 798-99 | 11 Īvara . . . | | 3 Jyēshṭha . |
| 3901 | 722 | 857 | 206 | | 799-800 | 12 Bahudhānya . . . | | ... |
| 3902 | 723 | 858 | 207 | | *800-01 | 13 Pramāthin . . . | | 7 Āvina . |
| 3903 | 724 | 859 | 208 | | 801-02 | 14 Vikrama . . . | | ... |
| 3904 | 725 | 860 | 209 | | 802-03 | 15 Vṛisha . . . | | ... |
| 3905 | 726 | 861 | 210 | | 803-04 | 16 Chitrabhānu . . . | | 5 Śrāvaṇa . |
| 3906 | 727 | 862 | 211 | | *804-05 | 17 Subhānu . . . | | ... |
| 3907 | 728 | 863 | 212 | | 805-06 | 18 Tāraṇa . . . | | ... |
| 3908 | 729 | 864 | 213 | | 806-07 | 19 Pārthiva . . . | | 3 Jyēshṭha . |
| 3909 | 730 | 865 | 214 | | 807-08 | 20 Vyaya . . . | | ... |
| 3910 | 731 | 866 | 215 | | *808-09 | 21 Sarvajit . . . | | ... |
| 3911 | 732 | 867 | 216 | | 809-10 | 22 Sarvadhārin . . . | | 1 Chaitra . |
| 3912 | 733 | 868 | 217 | | 810-11 | 23 Virōdhin . . . | | ... |
| 3913 | 734 | 869 | 218 | | 811-12 | 24 Vikṛita . . . | | 5 Śrāvaṇa . |
| 3914 | 735 | 870 | 219 | | *812-13 | 25 Khara . . . | | ... |
| 3915 | 736 | 871 | 220 | | 813-14 | 26 Nandana . . . | | ... |
| 3916 | 737 | 872 | 221 | | 814-15 | 27 Vijaya . . . | | 4 Āshāḍha . |
| 3917 | 738 | 873 | 222 | | 815-16 | 28 Jaya . . . | | ... |
| 3918 | 739 | 874 | 223 | | *816-17 | 29 Manmatha . . . | | ... |
| 3919 | 740 | 875 | 224 | | 817-18 | 30 Durmukha . . . | | 3 Jyēshṭha . |
| 3920 | 741 | 876 | 225 | | 818-19 | 31 Hēmalamba . . . | | ... |
| 3921 | 742 | 877 | 226 | | 819-20 | 32 Vilamba† . . . | | 7 Āvina . |
| 3922 | 743 | 878 | 227 | | *820-21 | 34 Śārvarin . . . | | ... |

† 33 Vikārin was suppressed.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|--------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mōsha-sam-krānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 19 Mar. (79) | 0 Sat. . | 22 59 29 | 15 Mar. (75) | 3 Tues. . | 260-9113 | 867-1034 | 264-0442 | 3898 |
| 20 Mar. (79) | 2 Mon. . | 5 11 38 | 4 Mar. (63) | 0 Sat. . | 136-6341 | 714-4074 | 233-2211 | 3899 |
| 20 Mar. (79) | 3 Tues. . | 11 23 47 | 21 Feb. (52) | 4 Wed. . | 12-3570 | 561-6515 | 202-3979 | 3900 |
| 20 Mar. (79) | 4 Wed. . | 17 35 56 | 12 Mar. (71) | 3 Tues. . | 47-0394 | 497-6449 | 253-6621 | 3901 |
| 19 Mar. (79) | 5 Thur. . | 23 48 5 | 19 Feb. (60) | 0 Sat. . | 9922-7623 | 344-8890 | 222-8629 | 3902 |
| 20 Mar. (79) | 0 Sat. . | 6 0 14 | 19 Mar. (78) | 6 Fri. . | 9957-4347 | 280-8825 | 274-1733 | 3903 |
| 20 Mar. (79) | 1 Sun. . | 12 12 23 | 8 Mar. (67) | 3 Tues. . | 9833-1675 | 128-1265 | 243-3500 | 3904 |
| 20 Mar. (79) | 2 Mon. . | 18 24 32 | 26 Feb. (57) | 1 Sun. . | 47-5223 | 11-6622 | 215-2647 | 3905 |
| 20 Mar. (80) | 4 Wed. . | 0 36 41 | 16 Mar. (76) | 0 Sat. . | 82-2048 | 947-6557 | 266-5751 | 3906 |
| 20 Mar. (79) | 5 Thur. . | 6 48 50 | 6 Mar. (65) | 5 Thur. . | 296-5595 | 831-1914 | 238-4897 | 3907 |
| 20 Mar. (79) | 6 Fri. . | 13 0 59 | 23 Feb. (54) | 2 Mon. . | 172-2824 | 678-4354 | 207-6664 | 3908 |
| 20 Mar. (79) | 0 Sat. . | 19 13 8 | 14 Mar. (73) | 1 Sun. . | 206-9648 | 614-4289 | 258-9769 | 3909 |
| 20 Mar. (80) | 2 Mon. . | 1 25 17 | 2 Mar. (62) | 5 Thur. . | 82-6876 | 461-6730 | 228-1537 | 3910 |
| 20 Mar. (79) | 3 Tues. . | 7 37 26 | 19 Feb. (50) | 2 Mon. . | 9958-4105 | 308-9171 | 197-3304 | 3911 |
| 20 Mar. (79) | 4 Wed. . | 13 49 35 | 10 Mar. (69) | 1 Sun. . | 9993-0928 | 244-9104 | 248-6408 | 3912 |
| 20 Mar. (79) | 5 Thur. . | 20 1 44 | 27 Feb. (58) | 5 Thur. . | 9868-8157 | 92-1545 | 217-8177 | 3913 |
| 20 Mar. (80) | 0 Sat. . | 2 13 52 | 17 Mar. (77) | 4 Wed. . | 9903-4980 | 28-1481 | 269-1281 | 3914 |
| 20 Mar. (79) | 1 Sun. . | 8 26 1 | 7 Mar. (66) | 2 Mon. . | 117-8529 | 906-6837 | 251-0427 | 3915 |
| 20 Mar. (79) | 2 Mon. . | 14 38 10 | 24 Feb. (55) | 6 Fri. . | 9993-5758 | 758-9278 | 210-2194 | 3916 |
| 20 Mar. (79) | 3 Tues. . | 20 50 19 | 15 Mar. (74) | 5 Thur. . | 28-2581 | 694-9212 | 264-5299 | 3917 |
| 20 Mar. (80) | 5 Thur. . | 3 2 28 | 3 Mar. (63) | 2 Mon. . | 9903-9810 | 542-1653 | 230-7067 | 3918 |
| 20 Mar. (79) | 6 Fri. . | 9 14 37 | 21 Feb. (52) | 0 Sat. . | 118-3358 | 425-7009 | 202-6212 | 3919 |
| 20 Mar. (79) | 0 Sat. . | 15 26 46 | 11 Mar. (70) | 5 Thur. . | 9814-3862 | 325-4028 | 251-1938 | 3920 |
| 20 Mar. (79) | 1 Sun. . | 21 38 55 | 1 Mar. (60) | 3 Tues. . | 28-7410 | 208-9389 | 223-1084 | 3921 |
| 20 Mar. (80) | 3 Tues. . | 3 51 4 | 19 Mar. (79) | 2 Mon. . | 63-4234 | 144-9321 | 274-3989 | 3922 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3923 | 744 | 879 | 228 | | 821-22 | 35 <i>Plava</i> | | ... |
| 3924 | 745 | 880 | 229 | | 822-23 | 36 <i>Śubhakṛit</i> | | 5 Śrāvaṇa . |
| 3925 | 746 | 881 | 230 | | 823-24 | 37 <i>Śūkhana</i> | | ... |
| 3926 | 747 | 882 | 231 | | *824-25 | 38 <i>Krōdhin</i> | | ... |
| 3927 | 748 | 883 | 232 | 0-1 | 825-26 | 39 <i>Viśvāvasu</i> | | 3 Jyēṣṭha . |
| 3928 | 749 | 884 | 233 | 1-2 | 826-27 | 40 <i>Parābhava</i> | | ... |
| 3929 | 750 | 885 | 234 | 2-3 | 827-28 | 41 <i>Plavaṅga</i> | | ... |
| 3930 | 751 | 886 | 235 | 3-4 | *828-29 | 42 <i>Kilaka</i> | | 1 Chaitra . |
| 3931 | 752 | 887 | 236 | 4-5 | 829-30 | 43 <i>Saumya</i> | | ... |
| 3932 | 753 | 888 | 237 | 5-6 | 830-31 | 44 <i>Sādhāraṇa</i> | | 5 Śrāvaṇa . |
| 3933 | 754 | 889 | 238 | 6-7 | 831-32 | 45 <i>Virōdhakṛit</i> | | ... |
| 3934 | 755 | 890 | 239 | 7-8 | *832-33 | 46 <i>Paridhāvin</i> | | ... |
| 3935 | 756 | 891 | 240 | 8-9 | 833-34 | 47 <i>Pramādin</i> | | 4 Āshāḍha . |
| 3936 | 757 | 892 | 241 | 9-10 | 834-35 | 48 <i>Ānanda</i> | | ... |
| 3937 | 758 | 893 | 242 | 10-11 | 835-36 | 49 <i>Rākshasa</i> | | ... |
| 3938 | 759 | 894 | 243 | 11-12 | *836-37 | 50 <i>Anala</i> | | 2 Vaiśākha . |
| 3939 | 760 | 895 | 244 | 12-13 | 837-38 | 51 <i>Pīṅgala</i> | | ... |
| 3940 | 761 | 896 | 245 | 13-14 | 838-39 | 52 <i>Kālayukta</i> | | 6 Bhādrapada |
| 3941 | 762 | 897 | 246 | 14-15 | 839-40 | 53 <i>Siddhārthin</i> | | ... |
| 3942 | 763 | 898 | 247 | 15-16 | *840-41 | 54 <i>Raudra</i> | | ... |
| 3943 | 764 | 899 | 248 | 16-17 | 841-42 | 55 <i>Durmati</i> | | 5 Śrāvaṇa |
| 3944 | 765 | 900 | 249 | 17-18 | 842-43 | 56 <i>Dandubhi</i> | | ... |
| 3945 | 766 | 901 | 250 | 18-19 | 843-44 | 57 <i>Rudhirōdgārin</i> | | ... |
| 3946 | 767 | 902 | 251 | 19-20 | *844-45 | 58 <i>Raktāksha</i> | | 3 Jyēṣṭha . |
| 3947 | 768 | 903 | 252 | 20-21 | 845-46 | 59 <i>Krōdhana</i> | | ... |

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 20 Mar. (79) | 4 Wed. | 10 3 13 | 8 Mar. (67) | 6 Fri. | 9939-1463 | 992-1760 | 243-5956 | 3923 |
| 20 Mar. (79) | 5 Thur. | 16 15 22 | 26 Feb. (57) | 4 Wed. | 153-5010 | 875-7118 | 215-5102 | 3924 |
| 20 Mar. (79) | 6 Fri. | 22 27 31 | 17 Mar. (70) | 3 Tues. | 188-1834 | 811-7052 | 266-8206 | 3925 |
| 20 Mar. (80) | 1 Sun. | 4 39 40 | 5 Mar. (65) | 0 Sat. | 63-9063 | 658-9493 | 235-9975 | 3926 |
| 20 Mar. (79) | 2 Mon. | 10 51 49 | 22 Feb. (53) | 4 Wed. | 9939-6292 | 506-1933 | 205-1642 | 3927 |
| 20 Mar. (79) | 3 Tues. | 17 3 58 | 13 Mar. (72) | 3 Tues. | 9974-3115 | 442-1868 | 256-4846 | 3928 |
| 20 Mar. (79) | 4 Wed. | 23 16 7 | 2 Mar. (61) | 0 Sat. | 9850-0344 | 289-4309 | 225-6614 | 3929 |
| 20 Mar. (80) | 6 Fri. | 5 28 16 | 20 Feb. (51) | 5 Thur. | 64-6593 | 172-9666 | 197-5760 | 3930 |
| 20 Mar. (79) | 0 Sat. | 11 40 25 | 10 Mar. (69) | 4 Wed. | 98-8015 | 108-9590 | 248-8804 | 3931 |
| 20 Mar. (79) | 1 Sun. | 17 52 34 | 27 Feb. (58) | 1 Sun. | 9974-7944 | 956-2040 | 218-0632 | 3932 |
| 21 Mar. (80) | 3 Tues. | 0 4 43 | 18 Mar. (77) | 0 Sat. | 9-4768 | 892-1976 | 269-3736 | 3933 |
| 20 Mar. (80) | 4 Wed. | 6 16 52 | 7 Mar. (67) | 5 Thur. | 223-8317 | 775-7333 | 241-2883 | 3934 |
| 20 Mar. (79) | 5 Thur. | 12 29 1 | 24 Feb. (55) | 2 Mon. | 99-5545 | 622-9773 | 210-4650 | 3935 |
| 20 Mar. (79) | 6 Fri. | 18 41 10 | 15 Mar. (74) | 1 Sun. | 134-2369 | 558-9708 | 261-7754 | 3936 |
| 21 Mar. (80) | 1 Sun. | 0 53 19 | 4 Mar. (63) | 5 Thur. | 9-9598 | 406-2148 | 230-9522 | 3937 |
| 20 Mar. (80) | 2 Mon. | 7 5 28 | 21 Feb. (52) | 2 Mon. | 9885-6626 | 253-4589 | 200-1290 | 3938 |
| 20 Mar. (79) | 3 Tues. | 13 17 37 | 11 Mar. (70) | 1 Sun. | 9920-3649 | 189-4523 | 252-4294 | 3939 |
| 20 Mar. (79) | 4 Wed. | 19 29 46 | 28 Feb. (59) | 5 Thur. | 9796-0878 | 36-6964 | 220-6162 | 3940 |
| 21 Mar. (80) | 6 Fri. | 1 41 55 | 20 Mar. (79) | 5 Thur. | 169-4022 | 8-9816 | 274-6644 | 3941 |
| 20 Mar. (80) | 0 Sat. | 7 54 4 | 8 Mar. (68) | 2 Mon. | 45-1250 | 856-2255 | 243-8412 | 3942 |
| 20 Mar. (79) | 1 Sun. | 14 6 13 | 26 Feb. (57) | 0 Sat. | 259-4798 | 739-7613 | 215-7558 | 3943 |
| 20 Mar. (79) | 2 Mon. | 20 18 22 | 17 Mar. (76) | 6 Fri. | 294-1622 | 675-7547 | 267-0662 | 3944 |
| 21 Mar. (80) | 4 Wed. | 2 30 31 | 6 Mar. (65) | 3 Tues. | 169-8851 | 522-9988 | 236-0990 | 3945 |
| 20 Mar. (80) | 5 Thur. | 8 42 40 | 23 Feb. (54) | 0 Sat. | 45-5979 | 370-2428 | 205-4197 | 3946 |
| 20 Mar. (79) | 6 Fri. | 14 54 49 | 12 Mar. (71) | 5 Thur. | 9741-6583 | 269-9440 | 253-9924 | 3947 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3948 | 769 | 904 | 253 | 21-22 | 846-47 | 60 Kshaya | . . . | ... |
| 3949 | 770 | 905 | 254 | 22-23 | 847-48 | 1 Prabhava | . . . | 1 Chaitra . |
| 3950 | 771 | 906 | 255 | 23-24 | *848-49 | 2 Vibhava | . . . | ... |
| 3951 | 772 | 907 | 256 | 24-25 | 849-50 | 3 Śukla | . . . | 5 Śrāvaṇa . |
| 3952 | 773 | 908 | 257 | 25-26 | 850-51 | 4 Pramōda | . . . | ... |
| 3953 | 774 | 909 | 258 | 26-27 | 851-52 | 5 Prajāpati | . . . | ... |
| 3954 | 775 | 910 | 259 | 27-28 | *852-53 | 6 Aṅgiras | . . . | 4 Āshāḍha . |
| 3955 | 776 | 911 | 260 | 28-29 | 853-54 | 7 Śrimukha | . . . | ... |
| 3956 | 777 | 912 | 261 | 29-30 | 854-55 | 8 Bhāva | . . . | ... |
| 3957 | 778 | 913 | 262 | 30-31 | 855-56 | 9 Yuvan | . . . | 2 Vaiśākha |
| 3958 | 779 | 914 | 263 | 31-32 | *856-57 | 10 Dhātṛi | . . . | ... |
| 3959 | 780 | 915 | 264 | 32-33 | 857-58 | 11 Īvara | . . . | 6 Bhādrapada |
| 3960 | 781 | 916 | 265 | 33-34 | 858-59 | 12 Bahudhānya | . . . | ... |
| 3961 | 782 | 917 | 266 | 34-35 | 859-60 | 13 Pramāthin | . . . | ... |
| 3962 | 783 | 918 | 267 | 35-36 | *860-61 | 14 Vikrama | . . . | 5 Śrāvaṇa . |
| 3963 | 784 | 919 | 268 | 36-37 | 861-62 | 15 Vṛisha | . . . | ... |
| 3964 | 785 | 920 | 269 | 37-38 | 862-63 | 16 Chitrabhānu | . . . | ... |
| 3965 | 786 | 921 | 270 | 38-39 | 863-64 | 17 Subhānu | . . . | 3 Jyēṣṭha |
| 3966 | 787 | 922 | 271 | 39-40 | *864-65 | 18 Tārana | . . . | ... |
| 3967 | 788 | 923 | 272 | 40-41 | 865-66 | 19 Pārthiva | . . . | { 7 Āśvina |
| 3968 | 789 | 924 | 273 | 41-42 | 866-67 | 20 Vyaya | . . . | { 9 Mārgaśīrṣa : (<i>ksh</i>) } |
| 3969 | 790 | 925 | 274 | 42-43 | 867-68 | 21 Sarvajit | . . . | 1 Chaitra . |
| 3970 | 791 | 926 | 275 | 43-44 | *868-69 | 22 Sarvadhārin | . . . | 5 Śrāvaṇa . |
| 3971 | 792 | 927 | 276 | 44-45 | 869-70 | 23 Virōdhin | . . . | ... |
| 3972 | 793 | 928 | 277 | 45-46 | 870-71 | 24 Vikṛita | . . . | ... |

LXXXII—*Contd.*

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-saṁkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 20 Mar. (79) | 0 Sat. . | 21 6 58 | 2 Mar. (61) | 3 Tues. . | 9956-0132 | 153-4804 | 226-0070 | 3948 |
| 21 Mar. (80) | 2 Mon. . | 3 19 7 | 19 Feb. (50) | 0 Sat. . | 9832-2167 | 0-7839 | 195-0837 | 3949 |
| 20 Mar. (80) | 3 Tues. . | 9 31 16 | 10 Mar. (70) | 0 Sat. . | 205-0503 | 973-0095 | 249-2319 | 3950 |
| 20 Mar. (79) | 4 Wed. . | 15 43 25 | 27 Feb. (58) | 4 Wed. . | 80-7732 | 820-2535 | 218-4088 | 3951 |
| 20 Mar. (79) | 5 Thur. . | 21 55 34 | 18 Mar. (77) | 3 Tues. . | 115-4556 | 756-2470 | 269-6192 | 3952 |
| 21 Mar. (80) | 0 Sat. . | 4 7 43 | 7 Mar. (66) | 0 Sat. . | 9991-1784 | 603-4911 | 238-7960 | 3953 |
| 20 Mar. (80) | 1 Sun. . | 10 19 52 | 24 Feb. (55) | 4 Wed. . | 9866-9013 | 450-7353 | 207-9727 | 3954 |
| 20 Mar. (79) | 2 Mon. . | 16 32 1 | 14 Mar. (73) | 3 Tues. . | 9900-5837 | 386-7286 | 259-2832 | 3955 |
| 20 Mar. (79) | 3 Tues. . | 22 49 10 | 3 Mar. (62) | 0 Sat. . | 9777-3065 | 233-9727 | 228-4600 | 3956 |
| 21 Mar. (80) | 5 Thur. . | 4 56 19 | 21 Feb. (52) | 5 Thur. . | 9991-6613 | 117-5094 | 200-3745 | 3957 |
| 20 Mar. (80) | 6 Fri. . | 11 8 28 | 11 Mar. (71) | 4 Wed. . | 26-3437 | 53-5018 | 251-6849 | 3958 |
| 20 Mar. (79) | 0 Sat. . | 17 20 37 | 1 Mar. (60) | 2 Mon. . | 240-4285 | 937-0375 | 223-5995 | 3959 |
| 20 Mar. (79) | 1 Sun. . | 23 32 45 | 20 Mar. (79) | 1 Sun. . | 275-3809 | 873-0310 | 274-9100 | 3960 |
| 21 Mar. (80) | 3 Tues. . | 5 44 54 | 9 Mar. (68) | 5 Thur. . | 151-1038 | 720-2751 | 244-0867 | 3961 |
| 20 Mar. (80) | 4 Wed. . | 11 57 3 | 26 Feb. (57) | 2 Mon. . | 26-8266 | 567-5191 | 213-2635 | 3962 |
| 20 Mar. (79) | 5 Thur. . | 18 9 12 | 16 Mar. (75) | 1 Sun. . | 61-5090 | 503-5126 | 264-5739 | 3963 |
| 21 Mar. (80) | 0 Sat. . | 0 21 21 | 5 Mar. (64) | 5 Thur. . | 9937-2318 | 350-7566 | 233-5708 | 3964 |
| 21 Mar. (80) | 1 Sun. . | 6 33 30 | 22 Feb. (53) | 2 Mon. . | 9812-9547 | 198-0007 | 202-9275 | 3965 |
| 20 Mar. (80) | 2 Mon. . | 12 45 39 | 12 Mar. (72) | 1 Sun. . | 9847-6371 | 132-9941 | 254-2379 | 3966 |
| 20 Mar. (79) | 3 Tues. . | 18 57 48 | 2 Mar. (61) | 6 Fri. . | 61-9919 | 17-5299 | 226-1525 | 3967 |
| 21 Mar. (80) | 5 Thur. . | 1 9 57 | 19 Feb. (50) | 3 Tues. . | 9937-7149 | 864-7741 | 195-3293 | 3968 |
| 21 Mar. (80) | 6 Fri. . | 7 22 6 | 11 Mar. (70) | 3 Tues. . | 311-0291 | 837-0590 | 249-3775 | 3969 |
| 20 Mar. (80) | 0 Sat. . | 13 34 15 | 28 Feb. (59) | 0 Sat. . | 186-7519 | 684-3031 | 218-5543 | 3970 |
| 20 Mar. (79) | 1 Sun. . | 19 46 24 | 18 Mar. (77) | 6 Fri. . | 221-4343 | 620-2965 | 269-8647 | 3971 |
| 21 Mar. (80) | 3 Tues. . | 1 58 33 | 7 Mar. (66) | 3 Tues. . | 97-1572 | 467-5406 | 239-0416 | 3972 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>Kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|--|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 3973 | 794 | 929 | 278 | 46-47 | 871-72 | 25 Khara . . . | 4 Āshāḍha . | |
| 3974 | 795 | 930 | 279 | 47-48 | *872-73 | 26 Nandana . . . | ... | |
| 3975 | 796 | 931 | 280 | 48-49 | 873-74 | 27 Vijaya . . . | ... | |
| 3976 | 797 | 932 | 281 | 49-50 | 874-75 | 28 Jaya . . . | 2 Vaiśākha . | |
| 3977 | 798 | 933 | 282 | 50-51 | 875-76 | 29 Manmatha . . . | ... | |
| 3978 | 799 | 934 | 283 | 51-52 | *876-77 | 30 Durmukha . . . | 6 Bhādrapada | |
| 3979 | 800 | 935 | 284 | 52-53 | 877-78 | 31 Hēmalamba . . . | ... | |
| 3980 | 801 | 936 | 285 | 53-54 | 878-79 | 32 Vilamba . . . | ... | |
| 3981 | 802 | 937 | 286 | 54-55 | 879-80 | 33 Vikārin . . . | 5 Śrāvāṇa . | |
| 3982 | 803 | 938 | 287 | 55-56 | *880-81 | 34 Śārvarin . . . | ... | |
| 3983 | 804 | 939 | 288 | 56-57 | 881-82 | 35 Plava . . . | ... | |
| 3984 | 805 | 940 | 289 | 57-58 | 882-83 | 36 Śubhakṛit . . . | 3 Jyēshṭha . | |
| 3985 | 806 | 941 | 290 | 58-59 | 883-84 | 37 Śobhana . . . | ... | |
| 3986 | 807 | 942 | 291 | 59-60 | *884-85 | 38 Krōdhin . . . | { 7 Āsvina
10 Pausa (<i>ksh.</i>) } | |
| 3987 | 808 | 943 | 292 | 60-61 | 885-86 | 39 Viśvāvasu . . . | | 1 Chaitra . |
| 3988 | 809 | 944 | 293 | 61-62 | 886-87 | 40 Parābhava . . . | ... | |
| 3989 | 810 | 945 | 294 | 62-63 | 887-88 | 41 Plavaṅga . . . | 5 Śrāvāṇa . | |
| 3990 | 811 | 946 | 295 | 63-64 | *888-89 | 42 Kilaka . . . | ... | |
| 3991 | 812 | 947 | 296 | 64-65 | 889-90 | 43 Saumya . . . | ... | |
| 3992 | 813 | 948 | 297 | 65-66 | 890-91 | 44 Sādhāraṇa . . . | 3 Jyēshṭha . | |
| 3993 | 814 | 949 | 298 | 66-67 | 891-92 | 45 Virōdhakṛit . . . | ... | |
| 3994 | 815 | 950 | 299 | 67-68 | *892-93 | 46 Paridhāvin . . . | ... | |
| 3995 | 816 | 951 | 300 | 68-69 | 893-94 | 47 Pramādin . . . | 2 Vaiśākha . | |
| 3996 | 817 | 952 | 301 | 69-70 | 894-95 | 48 Ananda . . . | ... | |
| 3997 | 818 | 953 | 302 | 70-71 | 895-96 | 49 Rākshasa . . . | 6 Bhādrapada | |

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 21 Mar. (80) | 4 Wed. . | 8 10 42 | 24 Feb. (55) | 0 Sat. . | 9972-8801 | 313-7846 | 208-2183 | 3973 |
| 20 Mar. (80) | 5 Thur. . | 14 22 51 | 14 Mar. (74) | 6 Fri. . | 7-5624 | 250-7781 | 259-5087 | 3974 |
| 20 Mar. (79) | 6 Fri. . | 20 35 0 | 3 Mar. (62) | 3 Tues. . | 9883-2853 | 98-0222 | 228-7055 | 3975 |
| 21 Mar. (80) | 1 Sun. . | 2 47 9 | 21 Feb. (52) | 1 Sun. . | 97-6401 | 981-5579 | 200-6101 | 3976 |
| 21 Mar. (80) | 2 Mon. . | 8 59 18 | 12 Mar. (71) | 0 Sat. . | 132-3224 | 917-5514 | 251-9305 | 3977 |
| 20 Mar. (80) | 3 Tues. . | 15 11 27 | 29 Feb. (60) | 4 Wed. . | 8-0453 | 764-7954 | 221-1072 | 3978 |
| 20 Mar. (79) | 4 Wed. . | 21 23 36 | 19 Mar. (78) | 3 Tues. . | 42-7277 | 700-7889 | 272-4177 | 3979 |
| 21 Mar. (80) | 6 Fri. . | 3 35 45 | 8 Mar. (67) | 0 Sat. . | 9918-4506 | 548-0330 | 241-5146 | 3980 |
| 21 Mar. (80) | 0 Sat. . | 9 47 54 | 26 Feb. (57) | 5 Thur. . | 132-8053 | 431-5686 | 213-5091 | 3981 |
| 20 Mar. (80) | 1 Sun. . | 16 0 3 | 15 Mar. (75) | 3 Tues. . | 9828-8558 | 331-2705 | 262-0817 | 3982 |
| 20 Mar. (79) | 2 Mon. . | 22 12 12 | 5 Mar. (64) | 1 Sun. . | 43-2106 | 214-8061 | 234-0013 | 3983 |
| 21 Mar. (80) | 4 Wed. . | 4 24 21 | 22 Feb. (53) | 5 Thur. . | 9918-9335 | 62-0502 | 203-1731 | 3984 |
| 21 Mar. (80) | 5 Thur. . | 10 36 30 | 13 Mar. (72) | 4 Wed. . | 9953-6158 | 998-0436 | 254-4835 | 3985 |
| 20 Mar. (80) | 6 Fri. . | 16 48 39 | 2 Mar. (62) | 2 Mon. . | 167-9707 | 881-5794 | 226-3980 | 3986 |
| 20 Mar. (79) | 0 Sat. . | 23 0 48 | 19 Feb. (50) | 6 Fri. . | 43-6936 | 728-9235 | 195-5748 | 3987 |
| 21 Mar. (80) | 2 Mon. . | 5 12 57 | 10 Mar. (69) | 5 Thur. . | 78-3759 | 664-8169 | 246-7165 | 3988 |
| 21 Mar. (80) | 3 Tues. . | 11 25 6 | 27 Feb. (58) | 2 Mon. . | 9954-0987 | 512-0610 | 216-0621 | 3989 |
| 20 Mar. (80) | 4 Wed. . | 17 37 15 | 17 Mar. (77) | 1 Sun. . | 9988-7811 | 448-0544 | 267-3724 | 3990 |
| 20 Mar. (79) | 5 Thur. . | 23 49 24 | 6 Mar. (65) | 5 Thur. . | 9864-5040 | 294-2984 | 236-5493 | 3991 |
| 21 Mar. (80) | 0 Sat. . | 6 1 33 | 23 Feb. (54) | 2 Mon. . | 9740-2268 | 142-5426 | 205-7261 | 3992 |
| 21 Mar. (80) | 1 Sun. . | 12 13 42 | 14 Mar. (73) | 1 Sun. . | 9774-9092 | 78-5360 | 257-0365 | 3993 |
| 20 Mar. (80) | 2 Mon. . | 18 25 51 | 3 Mar. (63) | 6 Fri. . | 9989-2641 | 962-0717 | 228-9510 | 3994 |
| 21 Mar. (80) | 4 Wed. . | 0 38 0 | 21 Feb. (52) | 4 Wed. . | 203-6198 | 845-6075 | 200-6968 | 3995 |
| 21 Mar. (80) | 5 Thur. . | 6 50 9 | 12 Mar. (71) | 3 Tues. . | 238-3012 | 781-6009 | 252-0073 | 3996 |
| 21 Mar. (80) | 6 Fri. . | 31 2 18 | 1 Mar. (60) | 0 Sat. . | 114-0241 | 628-8449 | 221-3528 | 3997 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|--------------------------|-----------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 3998 | 819 | 954 | 303 | 71-72 | *896-97 | 50 Anala | | ... |
| 3999 | 820 | 955 | 304 | 72-73 | 897-98 | 51 Piṅgala | | ... |
| 4000 | 821 | 956 | 305 | 73-74 | 898-99 | 52 Kāluyukta | | 4 Āshāḍha |
| 4001 | 822 | 957 | 306 | 74-75 | 899-900 | 53 Siddhārthin | | ... |
| 4002 | 823 | 958 | 307 | 75-76 | *900-01 | 54 Raudra | | ... |
| 4003 | 824 | 959 | 308 | 76-77 | 901-02 | 55 Durmati | | 3 Jyēshṭha . |
| 4004 | 825 | 960 | 309 | 77-78 | 902-03 | 56 Dundubhi | | ... |
| 4005 | 826 | 961 | 310 | 78-79 | 903-04 | 57 Rudhirōdgārin | | 7 Āśvina . |
| 4006 | 827 | 962 | 311 | 79-80 | *904-05 | 58 Raktāksha† | | ... |
| 4007 | 828 | 963 | 312 | 80-81 | 905-06 | 59 Krōdhana | 60 Kshaya | ... |
| 4008 | 829 | 964 | 313 | 81-82 | 906-07 | 60 Kshaya | 1 Prabhava | 5 Śrāvaṇa . |
| 4009 | 830 | 965 | 314 | 82-83 | 907-08 | 1 Prabhava | 2 Vibhava | ... |
| 4010 | 831 | 966 | 315 | 83-84 | *908-09 | 2 Vibhava | 3 Śukla | ... |
| 4011 | 832 | 967 | 316 | 84-85 | 909-10 | 3 Śukla | 4 Pramōda | 3 Jyēshṭha . |
| 4012 | 833 | 968 | 317 | 85-86 | 910-11 | 4 Pramōda | 5 Prajāpati | ... |
| 4013 | 834 | 969 | 318 | 86-87 | 911-12 | 5 Prajāpati | 6 Āṅgiras | ... |
| 4014 | 835 | 970 | 319 | 87-88 | *912-13 | 6 Āṅgiras | 7 Śrīmukha | 2 Vaiśākha . |
| 4015 | 836 | 971 | 320 | 88-89 | 913-14 | 7 Śrīmukha | 8 Bhāva | ... |
| 4016 | 837 | 972 | 321 | 89-90 | 914-15 | 8 Bhāva | 9 Yuvaṇ | 6 Bhādrapada |
| 4017 | 838 | 973 | 322 | 90-91 | 915-16 | 9 Yuvaṇ | 10 Dhātṛi | ... |
| 4018 | 839 | 974 | 323 | 91-92 | *916-17 | 10 Dhātṛi | 11 Īśvara | ... |
| 4019 | 840 | 975 | 324 | 92-93 | 917-18 | 11 Īśvara | 12 Bahudhānya | 4 Āshāḍha . |
| 4020 | 841 | 976 | 325 | 93-94 | 918-19 | 12 Bahudhānya | 13 Pramāthin | ... |
| 4021 | 842 | 977 | 326 | 94-95 | 919-20 | 13 Pramāthin | 14 Vikrama | ... |
| 4022 | 843 | 978 | 327 | 95-96 | *920-21 | 14 Vikrama | 15 Vṛisha | 3 Jyēshṭha |

† 59 Krōdhana was suppressed in the North. By Southern reckoning there was no suppression, nor has there been any such since.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 20 Mar. (80) | 0 Sat. . | 19 14 27 | 19 Mar. (79) | 6 Fri. . | 148-7064 | 564-8384 | 272-6032 | 3998 |
| 21 Mar. (80) | 2 Mon. . | 1 26 36 | 8 Mar. (67) | 3 Tues. . | 24-4293 | 412-0825 | 241-8401 | 3999 |
| 21 Mar. (80) | 3 Tues. . | 7 38 45 | 25 Feb. (56) | 0 Sat. . | 9900-1522 | 259-3266 | 211-0169 | 4000 |
| 21 Mar. (80) | 4 Wed. . | 13 50 54 | 16 Mar. (75) | 6 Fri. . | 9934-8345 | 195-3200 | 262-3050 | 4001 |
| 20 Mar. (80) | 5 Thur. . | 20 3 3 | 4 Mar. (64) | 3 Tues. . | 9810-5573 | 42-5640 | 231-4818 | 4002 |
| 21 Mar. (80) | 0 Sat. . | 2 15 12 | 22 Feb. (53) | 1 Sun. . | 24-9122 | 926-0997 | 203-3963 | 4003 |
| 21 Mar. (80) | 1 Sun. . | 8 27 21 | 13 Mar. (72) | 0 Sat. . | 59-5945 | 862-0930 | 254-7007 | 4004 |
| 21 Mar. (80) | 2 Mon. . | 14 29 29 | 3 Mar. (62) | 5 Thur. . | 273-9494 | 745-6289 | 226-6213 | 4005 |
| 20 Mar. (80) | 3 Tues. . | 20 51 38 | 20 Mar. (80) | 3 Tues. . | 9969-9998 | 645-3307 | 275-1940 | 4006 |
| 21 Mar. (80) | 5 Thur. . | 3 3 47 | 10 Mar. (69) | 1 Sun. . | 184-3546 | 528-8665 | 247-1085 | 4007 |
| 21 Mar. (80) | 6 Fri. . | 9 15 56 | 27 Feb. (58) | 5 Thur. . | 60-0774 | 376-1105 | 216-2853 | 4008 |
| 21 Mar. (80) | 0 Sat. . | 15 28 5 | 17 Mar. (76) | 3 Tues. . | 9756-1279 | 275-8123 | 264-8579 | 4009 |
| 20 Mar. (80) | 1 Sun. . | 21 40 14 | 6 Mar. (66) | 1 Sun. . | 9970-4827 | 159-3479 | 236-7726 | 4010 |
| 21 Mar. (80) | 3 Tues. . | 3 52 23 | 23 Feb. (54) | 5 Thur. . | 9846-2055 | 6-5921 | 205-9493 | 4011 |
| 21 Mar. (80) | 4 Wed. . | 10 4 32 | 14 Mar. (73) | 4 Wed. . | 9880-8879 | 942-5855 | 257-2597 | 4012 |
| 21 Mar. (80) | 5 Thur. . | 16 16 41 | 4 Mar. (63) | 2 Mon. . | 95-2428 | 826-1212 | 229-1743 | 4013 |
| 20 Mar. (80) | 6 Fri. . | 22 28 50 | 22 Feb. (53) | 0 Sat. . | 309-5975 | 709-6509 | 201-0889 | 4014 |
| 21 Mar. (80) | 1 Sun. . | 4 40 59 | 11 Mar. (70) | 5 Thur. . | 5-6479 | 609-3587 | 249-6615 | 4015 |
| 21 Mar. (80) | 2 Mon. . | 10 53 8 | 28 Feb. (59) | 2 Mon. . | 9881-3708 | 456-6028 | 218-8383 | 4016 |
| 21 Mar. (80) | 3 Tues. . | 17 5 17 | 19 Mar. (78) | 1 Sun. . | 9916-0531 | 392-5962 | 270-1487 | 4017 |
| 20 Mar. (80) | 4 Wed. . | 23 17 26 | 7 Mar. (67) | 5 Thur. . | 9791-7760 | 239-8403 | 239-3256 | 4018 |
| 21 Mar. (80) | 6 Fri. . | 5 29 35 | 25 Feb. (50) | 3 Tues. . | 6-1309 | 123-3760 | 211-2401 | 4019 |
| 21 Mar. (80) | 0 Sat. . | 11 41 44 | 10 Mar. (75) | 2 Mon. . | 40-8133 | 59-3695 | 262-5505 | 4020 |
| 21 Mar. (80) | 1 Sun. . | 17 53 53 | 5 Mar. (64) | 6 Fri. . | 9916-5360 | 906-6135 | 231-6273 | 4021 |
| 21 Mar. (81) | 3 Tues. . | 0 6 2 | 23 Feb. (54) | 4 Wed. . | 130-8909 | 790-1493 | 203-6419 | 4022 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4023 | 844 | 979 | 328 | 96-97 | 921-22 | 15 Vṛisha . . | 16 Chitrabhānu . | ... |
| 4024 | 845 | 980 | 329 | 97-98 | 922-23 | 16 Chitrabhānu . | 17 Subhānu . | 7 Āśvina . |
| 4025 | 846 | 981 | 330 | 98-99 | 923-24 | 17 Subhānu . | 18 Tārāṇa . | ... |
| 4026 | 847 | 982 | 331 | 99-100 | *924-25 | 18 Tārāṇa . . | 19 Pārthiva . | ... |
| 4027 | 848 | 983 | 332 | 100-01 | 925-26 | 19 Pārthiva . | 20 Vyaya . | 5 Śrāvaṇa . |
| 4028 | 849 | 984 | 333 | 101-02 | 926-27 | 20 Vyaya . . | 21 Sarvajit . | ... |
| 4029 | 850 | 985 | 334 | 102-03 | 927-28 | 21 Sarvajit . | 22 Sarvadhārin . | ... |
| 4030 | 851 | 986 | 335 | 103-04 | *928-29 | 22 Sarvadhārin . | 23 Virōdhin . | 3 Jyēshṭha . |
| 4031 | 852 | 987 | 336 | 104-05 | 929-30 | 23 Virōdhin . | 24 Vikṛita . | ... |
| 4032 | 853 | 988 | 337 | 105-06 | 930-31 | 24 Vikṛita . . | 25 Khara . | ... |
| 4033 | 854 | 989 | 338 | 106-07 | 931-32 | 25 Khara . . | 26 Nandana . | 2 Vaiśākha . |
| 4034 | 855 | 990 | 339 | 107-08 | *932-33 | 26 Nandana . | 27 Vijaya . | ... |
| 4035 | 856 | 991 | 340 | 108-09 | 933-34 | 27 Vijaya . . | 28 Jaya . | 6 Bhādrapada |
| 4036 | 857 | 992 | 341 | 109-10 | 934-35 | 28 Jaya . . | 29 Manmatha . | ... |
| 4037 | 858 | 993 | 342 | 110-11 | 935-36 | 29 Manmatha . | 30 Durmukha . | ... |
| 4038 | 859 | 994 | 343 | 111-12 | *936-37 | 30 Durmukha . | 31 Hēmalamba . | 4 Āshāḍha . |
| 4039 | 860 | 995 | 344 | 112-13 | 937-38 | 31 Hēmalamba . | 32 Vilamba . | ... |
| 4040 | 861 | 996 | 345 | 113-14 | 938-39 | 32 Vilamba . | 33 Vikārin . | ... |
| 4041 | 862 | 997 | 346 | 114-15 | 939-40 | 33 Vikārin . | 34 Śārvarin . | 3 Jyēshṭha . |
| 4042 | 863 | 998 | 347 | 115-16 | *940-41 | 34 Śārvarin . | 35 Plava . | ... |
| 4043 | 864 | 999 | 348 | 116-17 | 941-42 | 35 Plava . . | 36 Subhakṛit . | 7 Āśvina . |
| 4044 | 865 | 1000 | 349 | 117-18 | 942-43 | 36 Subhakṛit . | 37 Śōbhana . | ... |
| 4045 | 866 | 1001 | 350 | 118-19 | 943-44 | 37 Śōbhana . | 38 Krōdhin . | ... |
| 4046 | 867 | 1002 | 351 | 119-20 | *944-45 | 38 Krōdhin . | 39 Viśvāvasu . | 5 Śrāvaṇa . |
| 4047 | 868 | 1003 | 352 | 120-21 | 945-46 | 39 Viśvāvasu . | 40 Parābhava . | ... |

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mōsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 21 Mar. (80) | 4 Wed. ♀ | 6 18 11 | 13 Mar. (72) | 3 Tues. . | 165-5733 | 726-1427 | 254-9523 | 4023 |
| 21 Mar. (80) | 5 Thur. . | 12 30 20 | 2 Mar. (61) | 0 Sat. . | 41-2961 | 573-3868 | 224-1290 | 4024 |
| 21 Mar. (80) | 6 Fri. . | 18 42 29 | 21 Mar. (80) | 6 Fri. . | 75-9785 | 509-3802 | 275-4395 | 2025 |
| 21 Mar. (81) | 1 Sun. . | 0 54 38 | 9 Mar. (69) | 3 Tues. . | 9951-7014 | 356-6243 | 244-6163 | 4026 |
| 21 Mar. (80) | 2 Mon. . | 7 6 47 | 26 Feb. (57) | 0 Sat. . | 9827-4242 | 203-8683 | 213-7931 | 4027 |
| 21 Mar. (80) | 3 Tues. . | 13 18 56 | 17 Mar. (76) | 6 Fri. . | 9862-0966 | 139-8618 | 265-1034 | 4028 |
| 21 Mar. (80) | 4 Wed. . | 19 31 5 | 7 Mar. (66) | 4 Wed. . | 76-4614 | 23-3975 | 237-0181 | 4029 |
| 21 Mar. (81) | 6 Fri. . | 1 43 14 | 24 Feb. (55) | 1 Sun. . | 9952-1843 | 870-6416 | 206-1949 | 4030 |
| 21 Mar. (80) | 0 Sat. . | 7 55 23 | 14 Mar. (73) | 0 Sat. . | 9986-8066 | 806-6351 | 257-5053 | 4031 |
| 21 Mar. (80) | 1 Sun. . | 14 7 32 | 4 Mar. (63) | 5 Thur. . | 201-2215 | 690-1707 | 229-4108 | 4032 |
| 21 Mar. (80) | 2 Mon. . | 20 19 41 | 21 Feb. (52) | 2 Mon. . | 76-9443 | 537-4148 | 198-5966 | 4033 |
| 21 Mar. (81) | 4 Wed. . | 2 31 50 | 11 Mar. (71) | 1 Sun. . | 111-6267 | 473-4083 | 249-9071 | 4034 |
| 21 Mar. (80) | 5 Thur. . | 8 43 59 | 28 Feb. (59) | 5 Thur. . | 9987-3495 | 320-6523 | 219-0839 | 4035 |
| 21 Mar. (80) | 6 Fri. . | 14 56 8 | 19 Mar. (78) | 4 Wed. . | 22-0310 | 250-0458 | 270-3942 | 4036 |
| 21 Mar. (80) | 0 Sat. . | 21 8 17 | 8 Mar. (67) | 1 Sun. . | 9897-7548 | 103-8898 | 239-5711 | 4037 |
| 21 Mar. (81) | 2 Mon. . | 3 20 26 | 26 Feb. (57) | 6 Fri. . | 112-1097 | 987-4256 | 211-4857 | 4038 |
| 21 Mar. (80) | 3 Tues. . | 9 32 35 | 16 Mar. (75) | 5 Thur. . | 146-7920 | 923-4190 | 262-7961 | 4039 |
| 21 Mar. (80) | 4 Wed. . | 15 44 44 | 5 Mar. (64) | 2 Mon. . | 22-5148 | 770-6630 | 231-9729 | 4040 |
| 21 Mar. (80) | 5 Thur. . | 21 56 53 | 23 Feb. (54) | 0 Sat. . | 236-8697 | 654-1988 | 203-8874 | 4041 |
| 21 Mar. (81) | 0 Sat. . | 4 9 2 | 12 Mar. (72) | 5 Thur. . | 9932-9200 | 553-9006 | 252-4601 | 4042 |
| 21 Mar. (80) | 1 Sun. . | 10 21 11 | 1 Mar. (60) | 2 Mon. . | 9808-6429 | 401-1447 | 221-6368 | 4043 |
| 21 Mar. (80) | 2 Mon. . | 16 33 20 | 20 Mar. (79) | 1 Sun. . | 9843-3253 | 337-1381 | 272-9473 | 4044 |
| 21 Mar. (80) | 3 Tues. . | 22 45 29 | 9 Mar. (68) | 5 Thur. . | 9719-0482 | 184-3821 | 242-1240 | 4045 |
| 21 Mar. (81) | 5 Thur. . | 4 57 38 | 27 Feb. (58) | 3 Tues. . | 9933-4029 | 67-9178 | 214-0386 | 4046 |
| 21 Mar. (80) | 6 Fri. . | 11 9 47 | 17 Mar. (76) | 2 Mon. . | 9968-0854 | 3-9113 | 265-3490 | 4047 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshadi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4048 | 869 | 1004 | 353 | 121-22 | 946-47 | 40 Parābhava . | 41 Plavaṅga . | ... |
| 4049 | 870 | 1005 | 354 | 122-23 | 947-48 | 41 Plavaṅga . | 42 Kilaka . | 3 Jyēshṭha . |
| 4050 | 871 | 1006 | 355 | 123-24 | *948-49 | 42 Kilaka . | 43 Saumya . | ... |
| 4051 | 872 | 1007 | 356 | 124-25 | 949-50 | 43 Saumya . | 44 Sādhāraṇa . | ... |
| 4052 | 873 | 1008 | 357 | 125-26 | 950-51 | 44 Sādhāraṇa . | 45 Virōdhakṛit . | 1 Chaitra . |
| 4053 | 874 | 1009 | 358 | 126-27 | 951-52 | 45 Virōdhakṛit . | 46 Paridhāvin . | ... |
| 4054 | 875 | 1010 | 359 | 127-28 | *952-53 | 46 Paridhāvin . | 47 Pramādin . | 5 Śrāvaṇa . |
| 4055 | 876 | 1011 | 360 | 128-29 | 953-54 | 47 Pramādin . | 48 Ānanda . | ... |
| 4056 | 877 | 1012 | 361 | 129-30 | 954-55 | 48 Ānanda . | 49 Rākshasa . | ... |
| 4057 | 878 | 1013 | 362 | 130-31 | 955-56 | 49 Rākshasa . | 50 Anala . | 4 Āshāḍha . |
| 4058 | 879 | 1014 | 363 | 131-32 | *956-57 | 50 Anala . | 51 Piṅgala . | ... |
| 4059 | 880 | 1015 | 364 | 132-33 | 957-58 | 51 Piṅgala . | 52 Kālayukta . | ... |
| 4060 | 881 | 1016 | 365 | 133-34 | 958-59 | 52 Kālayukta . | 53 Siddhārthin . | 3 Jyēshṭha . |
| 4061 | 882 | 1017 | 366 | 134-35 | 959-60 | 53 Siddhārthin . | 54 Raudra . | ... |
| 4062 | 883 | 1018 | 367 | 135-36 | *960-61 | 54 Raudra . | 55 Durmati . | 7 Āṣvina . |
| 4063 | 884 | 1019 | 368 | 136-37 | 961-62 | 55 Durmati . | 56 Dundubhi . | ... |
| 4064 | 885 | 1020 | 369 | 137-38 | 962-63 | 56 Dundubhi . | 57 Rudhirōdgārin . | ... |
| 4065 | 886 | 1021 | 370 | 138-39 | 963-64 | 57 Rudhirōdgārin . | 58 Raktāksha . | 4 Āshāḍha† . |
| 4066 | 887 | 1022 | 371 | 139-40 | *964-65 | 58 Raktāksha . | 59 Krōdhana . | ... |
| 4067 | 888 | 1023 | 372 | 140-41 | 965-66 | 59 Krōdhana . | 60 Kshaya . | ... |
| 4068 | 889 | 1024 | 373 | 141-42 | 966-67 | 60 Kshaya . | 1 Prabhava . | 3 Jyēshṭha . |
| 4069 | 890 | 1025 | 374 | 142-43 | 967-68 | 1 Prabhava . | 2 Vibhava . | ... |
| 4070 | 891 | 1026 | 375 | 143-44 | *968-69 | 2 Vibhava . | 3 Śukla . | 12 Phālguna† . |
| 4071 | 892 | 1027 | 376 | 144-45 | 969-70 | 3 Śukla . | 4 Pramōda . | ... |
| 4072 | 893 | 1028 | 377 | 145-46 | 970-71 | 4 Pramōda . | 5 Prajāpati . | ... |

† See "Remarks" above, on the page preceding the Table.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month, A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 21 Mar. (80) | 0 Sat. . | 17 21 56 | 7 Mar. (86) | 0 Sat. . | 182-4402 | 887-4470 | 237-2637 | 4048 |
| 21 Mar. (80) | 1 Sun. . | 23 34 5 | 24 Feb. (55) | 4 Wed. . | 58-1630 | 734-6910 | 206-4404 | 4049 |
| 21 Mar. (81) | 3 Tues. . | 5 46 13 | 14 Mar. (74) | 3 Tues. . | 92-8454 | 670-6846 | 257-7508 | 4050 |
| 21 Mar. (80) | 4 Wed. . | 11 58 22 | 3 Mar. (62) | 0 Sat. . | 9968-5683 | 517-9286 | 226-9276 | 4051 |
| 21 Mar. (80) | 5 Thur. . | 18 10 31 | 20 Feb. (51) | 4 Wed. . | 9844-3112 | 365-1727 | 196-1044 | 4052 |
| 22 Mar. (81) | 0 Sat. . | 0 22 40 | 11 Mar. (70) | 3 Tues. . | 9878-9735 | 301-1662 | 247-4148 | 4053 |
| 21 Mar. (81) | 1 Sun. . | 6 34 49 | 28 Feb. (59) | 0 Sat. . | 9754-6963 | 148-4102 | 216-5916 | 4054 |
| 21 Mar. (80) | 2 Mon. . | 12 46 58 | 18 Mar. (77) | 6 Fri. . | 9789-3787 | 84-4037 | 267-9020 | 4055 |
| 21 Mar. (80) | 3 Tues. . | 18 59 7 | 8 Mar. (67) | 4 Wed. . | 3-7335 | 967-9394 | 239-8167 | 4056 |
| 22 Mar. (81) | 5 Thur. . | 1 11 16 | 26 Feb. (57) | 2 Mon. . | 218-0884 | 851-4750 | 211-7312 | 4057 |
| 21 Mar. (81) | 6 Fri. . | 7 23 25 | 16 Mar. (76) | 1 Sun. . | 252-7708 | 787-4685 | 263-0416 | 4058 |
| 21 Mar. (80) | 0 Sat. . | 13 35 34 | 5 Mar. (64) | 5 Thur. . | 128-4936 | 634-7125 | 232-2184 | 4059 |
| 21 Mar. (80) | 1 Sun. . | 19 47 43 | 22 Feb. (53) | 2 Mon. . | 4-2164 | 481-9566 | 201-3952 | 4060 |
| 22 Mar. (81) | 3 Tues. . | 1 59 52 | 13 Mar. (72) | 1 Sun. . | 38-8988 | 417-9502 | 252-7056 | 4061 |
| 21 Mar. (81) | 4 Wed. . | 8 12 1 | 1 Mar. (61) | 5 Thur. . | 9914-6217 | 265-1942 | 221-8823 | 4062 |
| 21 Mar. (80) | 5 Thur. . | 14 24 10 | 20 Mar. (79) | 4 Wed. . | 9949-3040 | 201-1877 | 273-1828 | 4063 |
| 21 Mar. (80) | 6 Fri. . | 20 36 19 | 9 Mar. (68) | 1 Sun. . | 9825-0269 | 48-5316 | 242-3696 | 4064 |
| 22 Mar. (81) | 1 Sun. . | 2 48 28 | 27 Feb. (58) | 6 Fri. . | 39-3817 | 931-9674 | 214-2842 | 4065 |
| 21 Mar. (81) | 2 Mon. . | 9 0 37 | 17 Mar. (77) | 5 Thur. . | 74-0642 | 867-9608 | 265-5946 | 4066 |
| 21 Mar. (80) | 3 Tues. . | 15 12 46 | 7 Mar. (66) | 3 Tues. . | 288-4189 | 751-4956 | 237-5093 | 4067 |
| 21 Mar. (80) | 4 Wed. . | 21 24 55 | 24 Feb. (55) | 0 Sat. . | 164-1418 | 598-7406 | 206-6860 | 4068 |
| 22 Mar. (81) | 6 Fri. . | 3 37 4 | 15 Mar. (74) | 6 Fri. . | 198-8042 | 534-7341 | 257-9964 | 4069 |
| 21 Mar. (81) | 0 Sat. . | 9 49 13 | 3 Mar. (63) | 3 Tues. . | 74-5470 | 381-9782 | 227-1731 | 4070 |
| 21 Mar. (80) | 1 Sun. . | 16 1 22 | 21 Mar. (80) | 1 Sun. . | 9770-5974 | 281-6799 | 275-7458 | 4071 |
| 21 Mar. (80) | 2 Mon. . | 22 13 31 | 11 Mar. (70) | 6 Fri. . | 9984-9522 | 616-2156 | 247-6604 | 4072 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAKVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4073 | 894 | 1029 | 378 | 146-47 | 971-72 | 5 Prajāpati . | 6 Aṅgiras . | 5 Śrāvapa . |
| 4074 | 895 | 1030 | 379 | 147-48 | *972-73 | 6 Aṅgiras . | 7 Śrīmukha . | ... |
| 4075 | 896 | 1031 | 380 | 148-49 | 973-74 | 7 Śrīmukha . | 8 Bhāva . | ... |
| 4076 | 897 | 1032 | 381 | 149-50 | 974-75 | 8 Bhāva . | 9 Yuvan . | 4 Āshāḍha . |
| 4077 | 898 | 1033 | 382 | 150-51 | 975-76 | 9 Yuvan . | 10 Dhātṛi . | ... |
| 4078 | 899 | 1034 | 383 | 151-52 | *976-77 | 10 Dhātṛi . | 11 Īvara . | ... |
| 4079 | 900 | 1035 | 384 | 152-53 | 977-78 | 11 Īvara . | 12 Bahudhānya . | 2 Vaiśākha . |
| 4080 | 901 | 1036 | 385 | 153-54 | 978-79 | 12 Bahudhānya . | 13 Pramāthin . | ... |
| 4081 | 902 | 1037 | 386 | 154-55 | 979-80 | 13 Pramāthin . | 14 Vikrama . | 6 Bhādrapada |
| 4082 | 903 | 1038 | 387 | 155-56 | *980-81 | 14 Vikrama . | 15 Vṛisha . | ... |
| 4083 | 904 | 1039 | 388 | 156-57 | 981-82 | 15 Vṛisha . | 16 Chitrabhānu . | ... |
| 4084 | 905 | 1040 | 389 | 157-58 | 982-83 | 16 Chitrabhānu . | 17 Subhānu . | 4 Āshāḍha†† . |
| 4085 | 906 | 1041 | 390 | 158-59 | 983-84 | 17 Subhānu . | 18 Tārāpa . | ... |
| 4086 | 907 | 1042 | 391 | 159-60 | *984-85 | 18 Tārāpa . | 19 Pārthiva . | ... |
| 4087 | 908 | 1043 | 392 | 160-61 | 985-86 | 19 Pārthiva . | 20 Vyaya . | 3 Jyēṣṭha . |
| 4088 | 909 | 1044 | 393 | 161-62 | 986-87 | 20 Vyaya . | 21 Sarvajit . | ... |
| 4089 | 910 | 1045 | 394 | 162-63 | 987-88 | 21 Sarvajit . | 22 Sarvadhārin . | ... |
| 4090 | 911 | 1046 | 395 | 163-64 | *988-89 | 22 Sarvadhārin . | 23 Virōdhin . | 1 Chaitra . |
| 4091 | 912 | 1047 | 396 | 164-65 | 989-90 | 23 Virōdhin . | 24 Vikrita† . | ... |
| 4092 | 913 | 1048 | 397 | 165-66 | 990-91 | 24 Vikrita . | 26 Nandana . | 5 Śrāvapa . |
| 4093 | 914 | 1049 | 398 | 166-67 | 991-92 | 25 Khara . | 27 Vijaya . | ... |
| 4094 | 915 | 1050 | 399 | 167-68 | *992-93 | 26 Nandana . | 28 Jaya . | ... |
| 4095 | 916 | 1051 | 400 | 168-69 | 993-94 | 27 Vijaya . | 29 Mahamatha . | 4 Āshāḍha . |
| 4096 | 917 | 1052 | 401 | 169-70 | 994-95 | 28 Jaya . | 30 Durmukha . | ... |
| 4097 | 918 | 1053 | 402 | 170-71 | 995-96 | 29 Mahamatha . | 31 Hṛsmabamba . | ... |

† 25 Khara was suppressed in the north.

†† See "Remarks" on page preceding the Table.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|--------------------------------|---|-----------|-----------|----------|----------|-------|
| SOLAR YEAR | | | LUNAR-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-sam-krānti. | Day and month A. D. | Week-day. | a | b | c | |
| 18 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 22 Mar. (81) | 4 Wed. | 4 25 40 | 28 Feb. (59) | 3 Tues. | 9860-6751 | 12-4597 | 217-8372 | 4073 |
| 21 Mar. (81) | 5 Thur. | 10 37 49 | 18 Mar. (78) | 2 Mon. | 9895-8574 | 948-4532 | 268-0475 | 4074 |
| 21 Mar. (80) | 6 Fri. | 16 49 58 | 8 Mar. (67) | 0 Sat. | 109-7123 | 831-9889 | 240-0622 | 4075 |
| 21 Mar. (80) | 0 Sat. | 23 2 7 | 25 Feb. (56)†† | 4 Wed. | 9985-4352 | 679-2329 | 209-2390 | 4076 |
| 22 Mar. (81) | 2 Mon. | 5 14 16 | 16 Mar. (75) | 3 Tues. | 20-1175 | 615-2264 | 260-5494 | 4077 |
| 21 Mar. (81) | 3 Tues. | 11 26 25 | 4 Mar. (64) | 0 Sat. | 9895-8404 | 462-4704 | 229-7201 | 4078 |
| 21 Mar. (80) | 4 Wed. | 17 38 34 | 21 Feb. (52) | 4 Wed. | 9771-5032 | 309-7145 | 198-9029 | 4079 |
| 21 Mar. (80) | 5 Thur. | 23 50 43 | 12 Mar. (71) | 3 Tues. | 9806-2456 | 245-7080 | 250-2134 | 4080 |
| 22 Mar. (81) | 0 Sat. | 6 2 52 | 2 Mar. (61) | 1 Sun. | 20-6004 | 129-2437 | 222-1279 | 4081 |
| 21 Mar. (81) | 1 Sun. | 12 15 1 | 20 Mar. (80) | 0 Sat. | 55-2828 | 65-2372 | 273-4383 | 4082 |
| 21 Mar. (80) | 2 Mon. | 18 27 10 | 9 Mar. (68) | 4 Wed. | 9931-0057 | 912-4811 | 242-6151 | 4083 |
| 22 Mar. (81) | 4 Wed. | 0 39 19 | 27 Feb. (58) | 2 Mon. | 145-3605 | 796-0169 | 214-5298 | 4084 |
| 22 Mar. (81) | 5 Thur. | 6 51 28 | 18 Mar. (77) | 1 Sun. | 180-0429 | 732-0103 | 265-8401 | 4085 |
| 21 Mar. (81) | 6 Fri. | 13 3 37 | 6 Mar. (66) | 5 Thur. | 55-7657 | 579-2544 | 235-0169 | 4086 |
| 21 Mar. (80) | 0 Sat. | 19 15 46 | 23 Feb. (54) | 2 Mon. | 9931-4886 | 426-4985 | 204-1937 | 4087 |
| 22 Mar. (81) | 2 Mon. | 1 27 55 | 11 Mar. (73) | 1 Sun. | 9906-1709 | 362-4919 | 255-5042 | 4088 |
| 22 Mar. (81) | 3 Tues. | 7 40 4 | 3 Mar. (62) | 5 Thur. | 9841-8938 | 209-7360 | 224-6809 | 4089 |
| 21 Mar. (81) | 4 Wed. | 13 52 13 | 21 Feb. (52) | 3 Tues. | 56-2487 | 93-2717 | 196-5954 | 4090 |
| 21 Mar. (80) | 5 Thur. | 20 4 22 | 11 Mar. (70) | 2 Mon. | 90-6310 | 29-2651 | 247-9059 | 409 |
| 22 Mar. (81) | 0 Sat. | 2 16 31 | 28 Feb. (59) | 6 Fri. | 9966-6538 | 876-5093 | 217-0828 | 4092 |
| 22 Mar. (81) | 1 Sun. | 8 28 40 | 19 Mar. (78) | 5 Thur. | 1-3372 | 812-5027 | 268-3931 | 4093 |
| 21 Mar. (81) | 2 Mon. | 14 40 49 | 8 Mar. (66) | 3 Tues. | 215-6911 | 696-0384 | 240-3077 | 4094 |
| 21 Mar. (80) | 3 Tues. | 20 52 58 | 25 Feb. (56) | 0 Sat. | 91-4130 | 543-2825 | 209-4845 | 4095 |
| 22 Mar. (81) | 5 Thur. | 3 5 6 | 16 Mar. (75) | 6 Fri. | 126-0053 | 479-2759 | 260-7950 | 4096 |
| 22 Mar. (81) | 6 Fri. | 9 17 15 | 5 Mar. (64) | 3 Tues. | 1-8192 | 326-5199 | 229-9717 | 4097 |

†† See "Remarks" on page preceding the Table.

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4098 | 919 | 1054 | 403 | 171-72 | *996-97 | 30 Durmukha . | 32 Vilamba . | 2 Vaiśākha . |
| 4099 | 920 | 1055 | 404 | 172-73 | 997-98 | 31 Hēmalamba . | 33 Vikārin . | ... |
| 4100 | 921 | 1056 | 405 | 173-74 | 998-99 | 32 Vilamba . | 34 Śārvarin . | 6 Bhādrapada |
| 4101 | 922 | 1057 | 406 | 174-75 | 999-1000 | 33 Vikārin . | 35 Plava . | ... |
| 4102 | 923 | 1058 | 407 | 175-76 | *1000-01 | 34 Śārvarin . | 36 Śubhakṛit . | ... |
| 4103 | 924 | 1059 | 408 | 176-77 | 1001-02 | 35 Plava . | 37 Śōbhana . | 5 Śrāvapaṭ . |
| 4104 | 925 | 1060 | 409 | 177-78 | 1002-03 | 36 Śubhakṛit . | 38 Krōdhin . | ... |
| 4105 | 926 | 1061 | 410 | 178-79 | 1003-04 | 37 Śōbhana . | 39 Viśvāvasu . | ... |
| 4106 | 927 | 1062 | 411 | 179-80 | *1004-05 | 38 Krōdhin . | 40 Parābhava . | 3 Jyēshṭha . |
| 4107 | 928 | 1063 | 412 | 180-81 | 1005-06 | 39 Viśvāvasu . | 41 Plavaṅga . | ... |
| 4108 | 929 | 1064 | 413 | 181-82 | 1006-07 | 40 Parābhava . | 42 Kilaka . | { 8 Kārttika
9 Māgadh:(<i>ksh.</i>) } |
| 4109 | 930 | 1065 | 414 | 182-83 | 1007-08 | 41 Plavaṅga . | 43 Saumya . | 1 Chaitra . |
| 4110 | 931 | 1066 | 415 | 183-84 | *1008-09 | 42 Kilaka . | 44 Sādhārāṇa . | ... |
| 4111 | 932 | 1067 | 416 | 184-85 | 1009-10 | 43 Saumya . | 45 Virōdhakṛit . | 5 Śrāvāṇa . |
| 4112 | 933 | 1068 | 417 | 185-86 | 1010-11 | 44 Sādhārāṇa . | 46 Paridhāvin . | ... |
| 4113 | 934 | 1069 | 418 | 186-87 | 1011-12 | 45 Virōdhakṛit . | 47 Pramādin . | ... |
| 4114 | 935 | 1070 | 419 | 187-88 | *1012-13 | 46 Paridhāvin . | 48 Ānanda . | 4 Āshāḍha . |
| 4115 | 936 | 1071 | 420 | 188-89 | 1013-14 | 47 Pramādin . | 49 Rākshasa . | ... |
| 4116 | 937 | 1072 | 421 | 189-90 | 1014-15 | 48 Ānanda . | 50 Anala . | ... |
| 4117 | 938 | 1073 | 422 | 190-91 | 1015-16 | 49 Rākshasa . | 51 Piṅgala . | 2 Vaiśākha . |
| 4118 | 939 | 1074 | 423 | 191-92 | *1016-17 | 50 Anala . | 52 Kālayukta . | ... |
| 4119 | 940 | 1075 | 424 | 192-93 | 1017-18 | 51 Piṅgala . | 53 Siddhārthin . | 6 Bhādrapada |
| 4120 | 941 | 1076 | 425 | 193-94 | 1018-19 | 52 Kālayukta . | 54 Raudra . | ... |
| 4121 | 942 | 1077 | 426 | 194-95 | 1019-20 | 53 Siddhārthin . | 55 Durmati . | ... |
| 4122 | 943 | 1078 | 427 | 195-96 | *1020-21 | 54 Raudra . | 56 Dundubhi . | 5 Śrāvapaṭ . |

† See "Remarks" on page preceding the Table.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | Kali. |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 21 Mar. (81) | 0 Sat. . | 15 29 24 | 22 Feb. (53) | 0 Sat. . | 9877-5419 | 173-7640 | 199-1484 | 4098 |
| 21 Mar. (80) | 1 Sun. . | 21 41 33 | 12 Mar. (71) | 6 Fri. . | 9912-2243 | 109-7575 | 251-4589 | 4099 |
| 22 Mar. (81) | 3 Tues. . | 3 53 42 | 2 Mar. (61) | 4 Wed. . | 126-5792 | 993-2933 | 222-3735 | 4100 |
| 22 Mar. (81) | 4 Wed. . | 10 5 51 | 21 Mar. (80) | 3 Tues. . | 161-2616 | 929-2867 | 273-6618 | 4101 |
| 21 Mar. (81) | 5 Thur. . | 16 18 0 | 9 Mar. (69) | 0 Sat. . | 36-9845 | 776-5307 | 242-8385 | 4102 |
| 21 Mar. (80) | 6 Fri. . | 22 30 9 | 27 Feb. (58) | 5 Thur. . | 251-3393 | 660-0664 | 214-7531 | 4103 |
| 22 Mar. (81) | 1 Sun. . | 4 42 18 | 17 Mar. (76) | 3 Tues. . | 9947-3897 | 559-7683 | 263-3257 | 4104 |
| 22 Mar. (81) | 2 Mon. . | 10 54 27 | 6 Mar. (65) | 0 Sat. . | 9823-1125 | 407-0122 | 232-5025 | 4105 |
| 21 Mar. (81) | 3 Tues. . | 17 6 36 | 24 Feb. (55) | 5 Thur. . | 37-4674 | 290-5480 | 204-4171 | 4106 |
| 21 Mar. (80) | 4 Wed. . | 23 18 45 | 13 Mar. (72) | 3 Tues. . | 9733-5177 | 190-2498 | 253-9897 | 4107 |
| 22 Mar. (81) | 6 Fri. . | 5 30 54 | 3 Mar. (62) | 1 Sun. . | 9947-8726 | 73-7855 | 224-9042 | 4108 |
| 22 Mar. (81) | 0 Sat. . | 11 43 3 | 21 Feb. (52) | 6 Fri. . | 162-2275 | 957-3273 | 196-8189 | 4109 |
| 21 Mar. (81) | 1 Sun. . | 17 55 12 | 11 Mar. (71) | 5 Thur. . | 196-9097 | 893-3146 | 248-1293 | 4110 |
| 22 Mar. (81) | 3 Tues. . | 0 7 21 | 28 Feb. (59) | 2 Mon. . | 72-6326 | 740-5588 | 217-3061 | 4111 |
| 22 Mar. (81) | 4 Wed. . | 6 19 30 | 19 Mar. (78) | 1 Sun. . | 107-3140 | 676-5522 | 268-6164 | 4112 |
| 22 Mar. (81) | 5 Thur. . | 12 31 39 | 8 Mar. (67) | 5 Thur. . | 9983-0379 | 523-7962 | 237-7933 | 4113 |
| 21 Mar. (81) | 6 Fri. . | 18 43 48 | 25 Feb. (56) | 2 Mon. . | 9858-7607 | 371-0403 | 206-9701 | 4114 |
| 22 Mar. (81) | 1 Sun. . | 0 55 57 | 15 Mar. (74) | 1 Sun. . | 9893-4431 | 307-0338 | 258-2805 | 4115 |
| 22 Mar. (81) | 2 Mon. . | 7 8 6 | 4 Mar. (63) | 5 Thur. . | 9769-1600 | 154-2779 | 227-4572 | 4116 |
| 22 Mar. (81) | 3 Tues. . | 13 20 15 | 22 Feb. (53) | 3 Tues. . | 9983-5207 | 37-8125 | 199-3718 | 4117 |
| 21 Mar. (81) | 4 Wed. . | 19 32 24 | 12 Mar. (72) | 2 Mon. . | 18-2031 | 973-8070 | 250-6823 | 4118 |
| 22 Mar. (81) | 6 Fri. . | 1 44 33 | 2 Mar. (61) | 0 Sat. . | 232-5580 | 857-3427 | 222-5968 | 4119 |
| 22 Mar. (81) | 0 Sat. . | 7 56 42 | 21 Mar. (80) | 6 Fri. . | 267-2404 | 793-3362 | 273-9072 | 4120 |
| 22 Mar. (81) | 1 Sun. . | 14 8 51 | 10 Mar. (69) | 3 Tues. . | 142-9632 | 640-5802 | 243-0840 | 4121 |
| 21 Mar. (81) | 2 Mon. . | 20 21 0 | 27 Feb. (58) | 0 Sat. . | 18-6860 | 487-8243 | 212-2609 | 4122 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4123 | 944 | 1079 | 428 | 196-97 | 1021-22 | 55 Durmati . | 57 Rudhirōdgārin | ... |
| 4124 | 945 | 1080 | 429 | 197-98 | 1022-23 | 56 Dundubhi . | 58 Raktāksha . | ... |
| 4125 | 946 | 1081 | 430 | 198-99 | 1023-24 | 57 Rudhirōdgārin | 59 Krōdhana . | 3 Jyēshtha . |
| 4126 | 947 | 1082 | 431 | 199-200 | *1024-25 | 58 Raktāksha . | 60 Kshaya . | ... |
| 4127 | 948 | 1083 | 432 | 200-01 | 1025-26 | 59 Krōdhana . | 1 Prabhava | { 7 Āsvina
10 Paus̥ha (<i>ksh</i>) } |
| 4128 | 949 | 1084 | 433 | 201-02 | 1026-27 | 60 Kshaya . | 2 Vibhava . | 1 Chaitra . |
| 4129 | 950 | 1085 | 434 | 202-03 | 1027-28 | 1 Prabhava . | 3 Śukla . | ... |
| 4130 | 951 | 1086 | 435 | 203-04 | *1028-29 | 2 Vibhava . | 4 Pramōda . | 5 Śrāvaṇa . |
| 4131 | 952 | 1087 | 436 | 204-05 | 1029-30 | 3 Śukla . | 5 Prajāpati . | ... |
| 4132 | 953 | 1088 | 437 | 205-06 | 1030-31 | 4 Pramōda . | 6 Āngiras . | ... |
| 4133 | 954 | 1089 | 438 | 206-07 | 1031-32 | 5 Prajāpati . | 7 Śrimukha . | 3 Jyēshtha . |
| 4134 | 955 | 1090 | 439 | 207-08 | *1032-33 | 6 Āngiras . | 8 Bhāva . | ... |
| 4135 | 956 | 1091 | 440 | 208-09 | 1033-34 | 7 Śrimukha . | 9 Yuvaṇ . | ... |
| 4136 | 957 | 1092 | 441 | 209-10 | 1034-35 | 8 Bhāva . | 10 Dhātṛi . | 2 Vāśākha . |
| 4137 | 958 | 1093 | 442 | 210-11 | 1035-36 | 9 Yuvaṇ . | 11 Iśvara . | ... |
| 4138 | 959 | 1094 | 443 | 211-12 | *1036-37 | 10 Dhātṛi . | 12 Bahudhānya . | 6 Bhādrapada |
| 4139 | 960 | 1095 | 444 | 212-13 | 1037-38 | 11 Iśvara . | 13 Pramāthin . | ... |
| 4140 | 961 | 1096 | 445 | 213-14 | 1038-39 | 12 Bahudhānya . | 14 Vikrama . | ... |
| 4141 | 962 | 1097 | 446 | 214-15 | 1039-40 | 13 Pramāthin . | 15 Vṛisha . | 4 Āshāḍha . |
| 4142 | 963 | 1098 | 447 | 215-16 | *1040-41 | 14 Vikrama . | 16 Chitrabhānu . | ... |
| 4143 | 964 | 1099 | 448 | 216-17 | 1041-42 | 15 Vṛisha . | 17 Subhānu . | ... |
| 4144 | 965 | 1100 | 449 | 217-18 | 1042-43 | 16 Chitrabhānu . | 18 Tārana . | 3 Jyēshtha . |
| 4145 | 966 | 1101 | 450 | 218-19 | 1043-44 | 17 Subhānu . | 19 Pārthiva . | ... |
| 4146 | 967 | 1102 | 451 | 219-20 | *1044-45 | 18 Tārana . | 20 Vyaya . | 7 Āsvina . |
| 4147 | 968 | 1103 | 452 | 220-21 | 1045-46 | 19 Pārthiva . | 21 Sarvajit . | ... |

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-saṁkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 22 Mar. (81) | 4 Wed. . | 2 33 9 | 17 Mar. (76) | 6 Fri. . | 53-3685 | 423-8178 | 263-3090 | 4123 |
| 22 Mar. (81) | 5 Thur. . | 8 45 18 | 6 Mar. (65) | 3 Tues. . | 9929-0902 | 271-0618 | 232-7480 | 4124 |
| 22 Mar. (81) | 6 Fri. . | 14 57 27 | 23 Feb. (54) | 0 Sat. . | 9804-8141 | 118-3068 | 201-9238 | 4125 |
| 21 Mar. (81) | 0 Sat. . | 21 9 36 | 13 Mar. (73) | 6 Fri. . | 9839-4965 | 54-2993 | 253-2353 | 4126 |
| 22 Mar. (81) | 2 Mon. . | 3 21 45 | 3 Mar. (62) | 4 Wed. . | 53-8514 | 937-8350 | 225-0498 | 4127 |
| 22 Mar. (81) | 3 Tues. . | 9 33 54 | 21 Feb. (52) | 2 Mon. . | 268-2062 | 821-3708 | 197-0643 | 4128 |
| 22 Mar. (81) | 4 Wed. . | 15 46 3 | 12 Mar. (71) | 1 Sun. . | 302-8885 | 757-3642 | 248-3748 | 4129 |
| 21 Mar. (81) | 5 Thur. . | 21 58 12 | 29 Feb. (60) | 5 Thur. . | 178-6114 | 604-6082 | 217-5517 | 4130 |
| 22 Mar. (81) | 0 Sat. . | 4 10 21 | 19 Mar. (78) | 4 Wed. . | 213-2937 | 540-6018 | 268-8620 | 4131 |
| 22 Mar. (81) | 1 Sun. . | 10 22 30 | 8 Mar. (67) | 1 Sun. . | 89-0166 | 387-8457 | 238-0388 | 4132 |
| 22 Mar. (81) | 2 Mon. . | 16 34 39 | 25 Feb. (56) | 5 Thur. . | 9964-7395 | 235-0898 | 207-2156 | 4133 |
| 21 Mar. (81) | 3 Tues. . | 22 46 48 | 15 Mar. (75) | 4 Wed. . | 9999-4219 | 171-0833 | 258-5271 | 4134 |
| 22 Mar. (81) | 5 Thur. . | 4 58 57 | 4 Mar. (63) | 1 Sun. . | 9875-1447 | 17-3274 | 227-7028 | 4135 |
| 22 Mar. (81) | 6 Fri. . | 11 11 6 | 22 Feb. (53) | 6 Fri. . | 89-4995 | 901-8631 | 199-6173 | 4136 |
| 22 Mar. (81) | 0 Sat. . | 17 23 5 | 13 Mar. (72) | 5 Thur. . | 124-1819 | 837-8565 | 250-4278 | 4137 |
| 21 Mar. (81) | 1 Sun. . | 23 35 24 | 1 Mar. (61) | 2 Mon. . | 9999-9048 | 685-1006 | 219-6046 | 4138 |
| 22 Mar. (81) | 3 Tues. . | 5 47 33 | 20 Mar. (79) | 1 Sun. . | 34-5871 | 621-0940 | 271-4150 | 4139 |
| 22 Mar. (81) | 4 Wed. . | 11 59 42 | 9 Mar. (68) | 5 Thur. . | 9910-3100 | 468-3381 | 239-5919 | 4140 |
| 22 Mar. (81) | 5 Thur. . | 18 11 50 | 26 Feb. (57) | 2 Mon. . | 9786-0329 | 315-5822 | 209-7686 | 4141 |
| 22 Mar. (82) | 0 Sat. . | 0 23 59 | 16 Mar. (76) | 1 Sun. . | 9820-7152 | 251-5756 | 261-0791 | 4142 |
| 22 Mar. (81) | 1 Sun. . | 6 36 8 | 6 Mar. (65) | 6 Fri. . | 35-0700 | 145-1113 | 232-9936 | 4143 |
| 22 Mar. (81) | 2 Mon. . | 12 48 17 | 23 Feb. (54) | 3 Tues. . | 9910-7929 | 982-3553 | 202-1704 | 4144 |
| 22 Mar. (81) | 3 Tues. . | 19 9 26 | 14 Mar. (73) | 2 Mon. . | 9945-4753 | 918-3478 | 253-4808 | 4145 |
| 22 Mar. (82) | 5 Thur. . | 1 12 35 | 3 Mar. (63) | 0 Sat. . | 159-8301 | 801-8845 | 225-3953 | 4146 |
| 22 Mar. (81) | 6 Fri. . | 7 24 44 | 22 Mar. (81) | 6 Fri. . | 194-5125 | 727-8780 | 276-7058 | 4147 |

TABLE

| CONCURRENT YEAR | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|-----------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Śaka. | Chaitradī Vikrama. | Mēshādī solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4148 | 969 | 1104 | 453 | 221-22 | 1046-47 | 20 Vyaya . . | 22 Sarvadhārin . | ... |
| 4149 | 970 | 1105 | 454 | 222-23 | 1047-48 | 21 Sarvajit . . | 23 Virōdhin . . | 5 Śrāvaṇa . |
| 4150 | 971 | 1106 | 455 | 223-24 | *1048-49 | 22 Sarvadhārin . | 24 Vikṛita . . | ... |
| 4151 | 972 | 1107 | 456 | 224-25 | 1049-50 | 23 Virōdhin . . | 25 Khara . . | ... |
| 4152 | 973 | 1108 | 457 | 225-26 | 1050-51 | 24 Vikṛita . . | 26 Nandana . . | 3 Jyēshṭha . |
| 4153 | 974 | 1109 | 458 | 226-27 | 1051-52 | 25 Khara . . | 27 Vijaya . . | ... |
| 4154 | 975 | 1110 | 459 | 227-28 | *1052-53 | 26 Nandana . . | 28 Jaya . . | ... |
| 4155 | 976 | 1111 | 460 | 228-29 | 1053-54 | 27 Vijaya . . | 29 Manmatha . . | 2 Vaiśākha . |
| 4156 | 977 | 1112 | 461 | 229-30 | 1054-55 | 28 Jaya . . | 30 Durmukha . . | ... |
| 4157 | 978 | 1113 | 462 | 230-31 | 1055-56 | 29 Manmatha . . | 31 Hēmalamba . . | 6 Bhādrapada |
| 4158 | 979 | 1114 | 463 | 231-32 | *1056-57 | 30 Durmukha . . | 32 Vilamba . . | ... |
| 4159 | 980 | 1115 | 464 | 232-33 | 1057-58 | 31 Hēmalamba . . | 33 Vikārin . . | ... |
| 4160 | 981 | 1116 | 465 | 233-34 | 1058-59 | 32 Vilamba . . | 34 Śārvarin . . | 4 Āshāḍha . |
| 4161 | 982 | 1117 | 466 | 234-35 | 1059-60 | 33 Vikārin . . | 35 Plava . . | ... |
| 4162 | 983 | 1118 | 467 | 235-36 | *1060-61 | 34 Śārvarin . . | 36 Śubhakṛit . . | ... |
| 4163 | 984 | 1119 | 468 | 236-37 | 1061-62 | 35 Plava . . | 37 Śōbhana . . | 3 Jyēshṭha . |
| 4164 | 985 | 1120 | 469 | 237-38 | 1062-63 | 36 Śubhakṛit . . | 38 Krōdhin . . | ... |
| 4165 | 986 | 1121 | 470 | 238-39 | 1063-64 | 37 Śōbhana . . | 39 Viśvāvasu . . | 7 Āsāvin |
| 4166 | 987 | 1122 | 471 | 239-40 | *1064-65 | 38 Krōdhin . . | 40 Parābhava . . | ... |
| 4167 | 988 | 1123 | 472 | 240-41 | 1065-66 | 39 Viśvāvasu . . | 41 Plavaṅga . . | ... |
| 4168 | 989 | 1124 | 473 | 241-42 | 1066-67 | 40 Parābhava . . | 42 Kīlaka . . | 5 Śrāvaṇa |
| 4169 | 990 | 1125 | 474 | 242-43 | 1067-68 | 41 Plavaṅga . . | 43 Saumya . . | ... |
| 4170 | 991 | 1126 | 475 | 243-44 | *1068-69 | 42 Kīlaka . . | 44 Sādhāraṇa . . | ... |
| 4171 | 992 | 1127 | 476 | 244-45 | 1069-70 | 43 Saumya . . | 45 Virōdhakṛit . . | 3 Jyēshṭha . |
| 4172 | 993 | 1128 | 477 | 245-46 | 1070-71 | 44 Sādhāraṇa . . | 46 Paridhāvin . . | ... |

TABLE II—Contd.

| COMMENCEMENT OF THE | | | | | | | | | Kali. |
|---------------------|-----------|------------------------------|--|-----------|-----------|----------|----------|------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | | |
| Day and month A. D. | Week-day. | Time of true Māha-samkrānti. | Day and month, A. D. | Week-day. | a | b | c | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 | |
| 22 Mar. (81) | 0 Sat. . | H. M. S.
13 36 53 | 11 Mar. (70) | 3 Tues. . | 70-2354 | 585-1221 | 245-8826 | 4148 | |
| 22 Mar. (81) | 1 Sun. . | 19 49 2 | 28 Feb. (59) | 0 Sat. . | 9945-9581 | 432-3661 | 215-0594 | 4149 | |
| 22 Mar. (82) | 3 Tues. . | 2 1 11 | 18 Mar. (78) | 6 Fri. . | 9980-6406 | 368-3596 | 266-3697 | 4150 | |
| 22 Mar. (81) | 4 Wed. . | 8 13 20 | 7 Mar. (66) | 3 Tues. . | 9856-3634 | 215-6036 | 235-5466 | 4151 | |
| 22 Mar. (81) | 5 Thur. . | 14 25 29 | 25 Feb. (56) | 1 Sun. . | 70-7183 | 99-1393 | 207-7536 | 4152 | |
| 22 Mar. (81) | 6 Fri. . | 20 37 38 | 16 Mar. (75) | 0 Sat. . | 105-4006 | 35-1328 | 258-7716 | 4153 | |
| 22 Mar. (82) | 1 Sun. . | 2 49 47 | 4 Mar. (64) | 4 Wed. . | 9981-1235 | 882-3769 | 227-9483 | 4154 | |
| 22 Mar. (81) | 2 Mon. . | 9 1 56 | 22 Feb. (53) | 2 Mon. . | 195-4783 | 767-9126 | 199-8629 | 4155 | |
| 22 Mar. (81) | 3 Tues. . | 15 14 5 | 13 Mar. (72) | 1 Sun. . | 230-1606 | 701-9061 | 251-1734 | 4156 | |
| 22 Mar. (81) | 4 Wed. . | 21 26 14 | 2 Mar. (61) | 5 Thur. . | 105-3835 | 549-1501 | 220-3501 | 4157 | |
| 22 Mar. (82) | 6 Fri. . | 3 38 23 | 20 Mar. (80) | 4 Wed. . | 140-5659 | 485-1435 | 271-6805 | 4158 | |
| 22 Mar. (81) | 0 Sat. . | 9 50 32 | 9 Mar. (68) | 1 Sun. . | 16-2888 | 333-3876 | 240-8375 | 4159 | |
| 22 Mar. (81) | 1 Sun. . | 16 2 41 | 26 Feb. (57) | 5 Thur. . | 9892-0116 | 179-6317 | 210-0142 | 4160 | |
| 22 Mar. (81) | 2 Mon. . | 22 14 50 | 17 Mar. (76) | 4 Wed. . | 9926-6940 | 115-6452 | 261-3246 | 4161 | |
| 22 Mar. (82) | 4 Wed. . | 4 26 59 | 6 Mar. (66) | 2 Mon. . | 141-0488 | 999-1608 | 233-2391 | 4162 | |
| 22 Mar. (81) | 5 Thur. . | 10 39 8 | 23 Feb. (54) | 6 Fri. . | 16-7716 | 856-4049 | 202-4159 | 4163 | |
| 22 Mar. (81) | 6 Fri. . | 16 51 17 | 14 Mar. (73) | 5 Thur. . | 51-4540 | 782-2983 | 253-7264 | 4164 | |
| 22 Mar. (81) | 0 Sat. . | 23 3 26 | 4 Mar. (63) | 3 Tues. . | 265-8089 | 665-9341 | 225-6409 | 4165 | |
| 22 Mar. (82) | 2 Mon. . | 5 15 35 | 21 Mar. (81) | 1 Sun. . | 9961-8593 | 565-6363 | 274-2135 | 4166 | |
| 22 Mar. (81) | 3 Tues. . | 11 27 44 | 10 Mar. (69) | 5 Thur. . | 9837-5821 | 412-8799 | 243-3903 | 4167 | |
| 22 Mar. (81) | 4 Wed. . | 17 39 53 | 28 Feb. (59) | 3 Tues. . | 51-9369 | 296-4157 | 215-3050 | 4168 | |
| 22 Mar. (81) | 5 Thur. . | 23 52 2 | 18 Mar. (77) | 1 Sun. . | 9747-9874 | 196-1174 | 263-8775 | 4169 | |
| 22 Mar. (82) | 0 Sat. . | 6 4 11 | 7 Mar. (67) | 6 Fri. . | 9962-3421 | 79-6532 | 235-7921 | 4170 | |
| 22 Mar. (81) | 1 Sun. . | 12 16 20 | 25 Feb. (56) | 4 Wed. . | 176-6970 | 963-1888 | 207-7067 | 4171 | |
| 22 Mar. (81) | 2 Mon. . | 18 28 29 | 16 Mar. (75) | 3 Tues. . | 211-3794 | 899-1823 | 259-0172 | 4172 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|-------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikram. | Mēshadi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4173 | 994 | 1129 | 478 | 246-47 | 1071-72 | 45 Virōdhakṛit . | 47 Pramādin . | { 8 Kārttika .
9 Mārgaśīrṣa (<i>ksh</i>) } |
| 4174 | 995 | 1130 | 479 | 247-48 | *1072-73 | 46 Paridhāvin . | 48 Ānanda . | 2 Vaiśākha . |
| 4175 | 996 | 1131 | 480 | 248-49 | 1073-74 | 47 Pramādin . | 49 Rākshasa . | ... |
| 4176 | 997 | 1132 | 481 | 249-50 | 1074-75 | 48 Ānanda . | 50 Anala† . | 6 Bhādrapada . |
| 4177 | 998 | 1133 | 482 | 250-51 | 1075-76 | 49 Rākshasa . | 52 Kālayukta . | ... |
| 4178 | 999 | 1134 | 483 | 251-52 | *1076-77 | 50 Anala . | 53 Siddhārthin . | ... |
| 4179 | 1000 | 1135 | 484 | 252-53 | 1077-78 | 51 Piṅgala . | 54 Raudra . | 4 Āshāḍha . |
| 4180 | 1001 | 1136 | 485 | 253-54 | 1078-79 | 52 Kālayukta . | 55 Durmati . | ... |
| 4181 | 1002 | 1137 | 486 | 254-55 | 1079-80 | 53 Siddhārthin . | 56 Dundubhī . | ... |
| 4182 | 1003 | 1138 | 487 | 255-56 | *1080-81 | 54 Raudra . | 57 Rudhīrōdgārīn . | 3 Jyēṣṭha . |
| 4183 | 1004 | 1139 | 488 | 256-57 | 1081-82 | 55 Durmati . | 58 Raktāksha . | ... |
| 4184 | 1005 | 1140 | 489 | 257-58 | 1082-83 | 56 Dundubhī . | 59 Krōdhana . | 7 Āsvina . |
| 4185 | 1006 | 1141 | 490 | 258-59 | 1083-84 | 57 Rudhīrōdgārīn . | 60 Kshaya . | ... |
| 4186 | 1007 | 1142 | 491 | 259-60 | *1084-85 | 58 Raktāksha . | 1 Prabhava . | ... |
| 4187 | 1008 | 1143 | 492 | 260-61 | 1085-86 | 59 Krōdhana . | 2 Vibhava . | 5 Śrāvaṇa . |
| 4188 | 1009 | 1144 | 493 | 261-62 | 1086-87 | 60 Kshaya . | 3 Śukla . | ... |
| 4189 | 1010 | 1145 | 494 | 262-63 | 1087-88 | 1 Prabhava . | 4 Pramōda . | ... |
| 4190 | 1011 | 1146 | 495 | 263-64 | *1088-89 | 2 Vibhava . | 5 Prajāpati . | 3 Jyēṣṭha . |
| 4191 | 1012 | 1147 | 496 | 264-65 | 1089-90 | 3 Śukla . | 6 Angīras . | ... |
| 4192 | 1013 | 1148 | 497 | 265-66 | 1090-91 | 4 Pramōda . | 7 Śrīmukha . | { 8 Kārttika .
10 Pausa (<i>ksh</i>) } |
| 4193 | 1014 | 1149 | 498 | 266-67 | 1091-92 | 5 Prajāpati . | 8 Bhāva . | 1 Chaitra . |
| 4194 | 1015 | 1150 | 499 | 267-68 | *1092-93 | 6 Angīras . | 9 Yuvān . | ... |
| 4195 | 1016 | 1151 | 500 | 268-69 | 1093-94 | 7 Śrīmukha . | 10 Dhātṛi . | 6 Bhādrapada . |
| 4196 | 1017 | 1152 | 501 | 269-70 | 1094-95 | 8 Bhāva . | 11 Īvara . | ... |
| 4197 | 1018 | 1153 | 502 | 270-71 | 1095-96 | 9 Yuvān . | 12 Bahudhānya . | ... |

† 51 Piṅgala was suppressed in the north.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|--------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-sam-krānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 23 Mar. (82) | 4 Wed. | 0 40 38 | 5 Mar. (64) | 0 Sat. | 97-1023 | 746-4264 | 228-1939 | 4173 |
| 22 Mar. (82) | 5 Thur. | 6 52 47 | 22 Feb. (53) | 4 Wed. | 9962-8251 | 593-6705 | 197-3706 | 4174 |
| 22 Mar. (81) | 6 Fri. | 18 4 56 | 12 Mar. (71) | 3 Tues. | 9997-5674 | 530-6639 | 248-6811 | 4175 |
| 22 Mar. (81) | 0 Sat. | 19 17 5 | 1 Mar. (60) | 0 Sat. | 9873-2303 | 376-9079 | 217-8580 | 4176 |
| 23 Mar. (82) | 2 Mon. | 1 29 14 | 20 Mar. (79) | 6 Fri. | 9907-9126 | 312-9015 | 269-1683 | 4177 |
| 22 Mar. (82) | 3 Tues. | 7 41 23 | 8 Mar. (69) | 3 Tues. | 9783-6355 | 160-1454 | 238-3451 | 4178 |
| 22 Mar. (81) | 4 Wed. | 13 53 32 | 26 Feb. (57) | 1 Sun. | 9997-9904 | 43-6812 | 210-2507 | 4179 |
| 22 Mar. (81) | 5 Thur. | 20 5 41 | 17 Mar. (76) | 0 Sat. | 33-6726 | 979-6747 | 261-5702 | 4180 |
| 23 Mar. (82) | 0 Sat. | 2 17 50 | 7 Mar. (66) | 5 Thur. | 247-0275 | 863-2103 | 233-4847 | 4181 |
| 22 Mar. (82) | 1 Sun. | 8 29 59 | 24 Feb. (55) | 2 Mon. | 122-7504 | 710-4544 | 202-6614 | 4182 |
| 22 Mar. (81) | 2 Mon. | 14 42 8 | 14 Mar. (73) | 1 Sun. | 157-4328 | 646-4478 | 253-9719 | 4183 |
| 22 Mar. (81) | 3 Tues. | 20 54 17 | 3 Mar. (62) | 5 Thur. | 33-1557 | 493-6919 | 223-1487 | 4184 |
| 23 Mar. (82) | 5 Thur. | 3 6 26 | 22 Mar. (81) | 4 Wed. | 67-8380 | 429-6854 | 274-4591 | 4185 |
| 22 Mar. (82) | 6 Fri. | 9 18 35 | 10 Mar. (70) | 1 Sun. | 9943-5609 | 276-9294 | 245-6358 | 4186 |
| 22 Mar. (81) | 0 Sat. | 15 30 43 | 27 Feb. (58) | 5 Thur. | 9819-2837 | 124-1735 | 212-8127 | 4187 |
| 22 Mar. (81) | 1 Sun. | 21 42 52 | 18 Mar. (77) | 4 Wed. | 9853-9661 | 60-1669 | 264-1231 | 4188 |
| 23 Mar. (82) | 3 Tues. | 3 55 1 | 8 Mar. (67) | 2 Mon. | 68-3209 | 943-8027 | 236-0377 | 4189 |
| 22 Mar. (82) | 4 Wed. | 10 7 10 | 26 Feb. (57) | 0 Sat. | 283-6758 | 827-2383 | 207-9522 | 4190 |
| 22 Mar. (81) | 5 Thur. | 16 19 19 | 16 Mar. (75) | 6 Fri. | 317-3582 | 763-2318 | 259-2627 | 4191 |
| 22 Mar. (81) | 6 Fri. | 22 31 28 | 5 Mar. (64) | 3 Tues. | 193-0810 | 610-4759 | 228-4395 | 4192 |
| 23 Mar. (82) | 1 Sun. | 4 43 37 | 22 Feb. (53) | 0 Sat. | 68-8032 | 457-7200 | 197-6162 | 4193 |
| 22 Mar. (82) | 2 Mon. | 10 55 46 | 12 Mar. (72) | 6 Fri. | 108-4862 | 393-7134 | 248-9266 | 4194 |
| 22 Mar. (81) | 3 Tues. | 17 7 55 | 1 Mar. (60) | 3 Tues. | 9979-2090 | 240-9577 | 218-1035 | 4195 |
| 22 Mar. (81) | 4 Wed. | 23 20 4 | 20 Mar. (79) | 2 Mon. | 13-9914 | 176-9509 | 269-4139 | 4196 |
| 23 Mar. (82) | 6 Fri. | 5 32 12 | 9 Mar. (68) | 6 Fri. | 9899-6143 | 24-1949 | 238-5907 | 4197 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(adhika) and
suppressed
(kshaya) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|-----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4198 | 1019 | 1154 | 503 | 271-72 | *1096-97 | 10 Dhātṛi . . | 13 Pramāthin . | 4 Āshāḍha . |
| 4199 | 1020 | 1155 | 504 | 272-73 | 1097-98 | 11 Īvara . . | 14 Vikrama . | ... |
| 4200 | 1021 | 1156 | 505 | 273-74 | 1098-99 | 12 Bahudhānya . | 15 Vṛisha . . | ... |
| 4201 | 1022 | 1157 | 506 | 274-75 | 1099-1100 | 13 Pramāthin . | 16 Chitrabhānu . | 3 Jyēshṭha . |
| 4202 | 1023 | 1158 | 507 | 275-76 | *1100-01 | 14 Vikrama . | 17 Subhānu . | ... |
| 4203 | 1024 | 1159 | 508 | 276-77 | 1101-02 | 15 Vṛisha . . | 18 Tārāṇa . . | 7 Āvina . |
| 4204 | 1025 | 1160 | 509 | 277-78 | 1102-03 | 16 Chitrabhānu . | 19 Pārthiva . | ... |
| 4205 | 1026 | 1161 | 510 | 278-79 | 1103-04 | 17 Subhānu . | 20 Vyaya . . | ... |
| 4206 | 1027 | 1162 | 511 | 279-80 | *1104-05 | 18 Tārāṇa . . | 21 Sarvajit . | 4 Āshāḍha . |
| 4207 | 1028 | 1163 | 512 | 280-81 | 1105-06 | 19 Pārthiva . | 22 Sarvadhārin . | ... |
| 4208 | 1029 | 1164 | 513 | 281-82 | 1106-07 | 20 Vyaya . . | 23 Virōdhin . | ... |
| 4209 | 1030 | 1165 | 514 | 282-83 | 1107-08 | 21 Sarvajit . | 24 Vikṛita . . | 3 Jyēshṭha . |
| 4210 | 1031 | 1166 | 515 | 283-84 | *1108-09 | 22 Sarvadhārin . | 25 Khara . . | ... |
| 4211 | 1032 | 1167 | 516 | 284-85 | 1109-10 | 23 Virōdhin . | 26 Nandana . | { 8 Kārttika
10 Pausa (ksh)
12 Phālguna } |
| 4212 | 1033 | 1168 | 517 | 285-86 | 1110-11 | 24 Vikṛita . . | 27 Vijaya . . | |
| 4213 | 1034 | 1169 | 518 | 286-87 | 1111-12 | 25 Khara . . | 28 Jaya . . | |
| 4214 | 1035 | 1170 | 519 | 287-88 | *1112-13 | 26 Nandana . | 29 Maṇmatha . | 5 Śrāvāṇa . |
| 4215 | 1036 | 1171 | 520 | 288-89 | 1113-14 | 27 Vijaya . . | 30 Durmukha . | ... |
| 4216 | 1037 | 1172 | 521 | 289-90 | 1114-15 | 28 Jaya . . | 31 Hēmalamba . | ... |
| 4217 | 1038 | 1173 | 522 | 290-91 | 1115-16 | 29 Maṇmatha . | 32 Vilamba . . | 4 Āshāḍha . |
| 4218 | 1039 | 1174 | 523 | 291-92 | *1116-17 | 30 Durmukha . | 33 Vikārin . . | ... |
| 4219 | 1040 | 1175 | 524 | 292-93 | 1117-18 | 31 Hēmalamba . | 34 Śārvarin . | ... |
| 4220 | 1041 | 1176 | 525 | 293-94 | 1118-19 | 32 Vilamba . | 35 Plava . . | 2 Vaiśākha . |
| 4221 | 1042 | 1177 | 526 | 294-95 | 1119-20 | 33 Vikārin . | 36 Subhākrit . | ... |
| 4222 | 1043 | 1178 | 527 | 295-96 | *1120-21 | 34 Śārvarin . | 37 Śobhana . | 6 Bhādrapada . |

LXXXII.—Contd.

| COMMENCEMENT OF THE | | | | | | | | | Kali. |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | | |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 | |
| | | H. M. S. | | | | | | | |
| 22 Mar. (82) | 0 Sat. | 11 44 22 | 27 Feb. (58) | 4 Wed. | 103-9691 | 907-7307 | 210-5052 | 4198 | |
| 22 Mar. (81) | 1 Sun. | 17 56 31 | 17 Mar. (76) | 3 Tues. | 138-6515 | 843-7242 | 261-8157 | 4199 | |
| 23 Mar. (82) | 3 Tues. | 0 8 40 | 6 Mar. (65) | 0 Sat. | 14-3744 | 690-9683 | 230-9925 | 4200 | |
| 23 Mar. (82) | 4 Wed. | 6 20 49 | 24 Feb. (55) | 5 Thur. | 228-7291 | 574-5038 | 202-8848 | 4201 | |
| 22 Mar. (82) | 5 Thur. | 12 32 58 | 13 Mar. (73) | 3 Tues. | 9924-7795 | 474-2057 | 251-4575 | 4202 | |
| 22 Mar. (81) | 6 Fri. | 18 45 7 | 2 Mar. (61) | 0 Sat. | 9800-5024 | 321-4497 | 20-6342 | 4203 | |
| 23 Mar. (82) | 1 Sun. | 0 57 16 | 21 Mar. (80) | 6 Fri. | 9835-1847 | 257-4432 | 271-9446 | 4204 | |
| 23 Mar. (82) | 2 Mon. | 7 9 25 | 11 Mar. (70) | 4 Wed. | 49-5396 | 140-9788 | 243-8592 | 4205 | |
| 22 Mar. (82) | 3 Tues. | 13 21 34 | 28 Feb. (59) | 1 Sun. | 9925-2624 | 988-2229 | 213-0361 | 4206 | |
| 22 Mar. (81) | 4 Wed. | 19 33 43 | 18 Mar. (77) | 0 Sat. | 9959-9448 | 924-2154 | 264-3464 | 4207 | |
| 23 Mar. (82) | 6 Fri. | 1 45 52 | 8 Mar. (67) | 5 Thur. | 174-2996 | 807-7521 | 236-2610 | 4208 | |
| 23 Mar. (82) | 0 Sat. | 7 58 1 | 25 Feb. (56) | 2 Mon. | 50-0225 | 654-9962 | 205-4387 | 4209 | |
| 22 Mar. (82) | 1 Sun. | 14 10 10 | 15 Mar. (75) | 1 Sun. | 84-7048 | 590-9896 | 256-7483 | 4210 | |
| 22 Mar. (81) | 2 Mon. | 20 22 19 | 4 Mar. (63) | 5 Thur. | 9960-4277 | 438-2337 | 225-9250 | 4211 | |
| 23 Mar. (82) | 4 Wed. | 2 34 28 | 23 Mar. (82) | 4 Wed. | 9995-1101 | 374-2271 | 277-2354 | 4212 | |
| 23 Mar. (82) | 5 Thur. | 8 46 37 | 12 Mar. (71) | 1 Sun. | 9870-8330 | 221-4712 | 246-4122 | 4213 | |
| 22 Mar. (82) | 6 Fri. | 14 58 46 | 1 Mar. (61) | 6 Fri. | 85-1877 | 105-0069 | 218-3269 | 4214 | |
| 22 Mar. (81) | 0 Sat. | 21 10 55 | 20 Mar. (79) | 5 Thur. | 119-8701 | 41-0004 | 269-6373 | 4215 | |
| 23 Mar. (82) | 2 Mon. | 3 23 4 | 9 Mar. (68) | 2 Mon. | 9995-5930 | 888-3444 | 238-8140 | 4216 | |
| 23 Mar. (82) | 3 Tues. | 9 35 13 | 27 Feb. (58) | 0 Sat. | 209-9478 | 771-7891 | 210-7286 | 4217 | |
| 22 Mar. (82) | 4 Wed. | 15 47 22 | 17 Mar. (77) | 6 Fri. | 244-6302 | 707-7736 | 262-0391 | 4218 | |
| 22 Mar. (81) | 5 Thur. | 21 59 31 | 6 Mar. (65) | 3 Tues. | 120-3530 | 555-0176 | 231-2158 | 4219 | |
| 23 Mar. (82) | 0 Sat. | 4 11 40 | 23 Feb. (54) | 0 Sat. | 9996-0759 | 402-2617 | 200-3925 | 4220 | |
| 23 Mar. (82) | 1 Sun. | 10 23 49 | 14 Mar. (73) | 6 Fri. | 30-7582 | 338-2552 | 251-7030 | 4221 | |
| 22 Mar. (82) | 2 Mon. | 16 35 58 | 2 Mar. (62) | 3 Tues. | 9906-4811 | 185-4993 | 220-8798 | 4222 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|----------|----------------------|----------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshadi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4223 | 1044 | 1179 | 528 | 296-97 | 1121-22 | 35 Plava . . | 38 Krōdhin . . | ... |
| 4224 | 1045 | 1180 | 529 | 297-98 | 1122-23 | 36 Śubhakrit . . | 39 Viśvāvasu . . | ... |
| 4225 | 1046 | 1181 | 530 | 298-99 | 1123-24 | 37 Śōbhana . . | 40 Parābhava . . | 4 Āshāḍha . . |
| 4226 | 1047 | 1182 | 531 | 299-300 | *1124-25 | 38 Krōdhin . . | 41 Plavaṅga . . | ... |
| 4227 | 1048 | 1183 | 532 | 300-01 | 1125-26 | 39 Viśvāvasu . . | 42 Kilaka . . | ... |
| 4228 | 1049 | 1184 | 533 | 301-02 | 11 0-27 | 40 Parābhava . . | 43 Saumya . . | 3 Jyēṣṭha . . |
| 4229 | 1050 | 1185 | 534 | 302-03 | 1127-28 | 41 Plavaṅga . . | 44 Sādhāraṇa . . | ... |
| 4230 | 1051 | 1186 | 535 | 303-04 | *1128-29 | 42 Kilaka . . | 45 Virōdhakrit . . | 12 Phālguna† . . |
| 4231 | 1052 | 1187 | 536 | 304-05 | 1129-30 | 43 Saumya . . | 46 Paridhāvin . . | ... |
| 4232 | 1053 | 1188 | 537 | 305-06 | 1130-31 | 44 Sādhāraṇa . . | 47 Pramādin . . | ... |
| 4233 | 1054 | 1189 | 538 | 306-07 | 1131-32 | 45 Virōdhakrit . . | 48 Ānanda . . | 5 Śrāvaṇa . . |
| 4234 | 1055 | 1190 | 539 | 307-08 | *1132-33 | 46 Paridhāvin . . | 49 Rākṣasa . . | ... |
| 4235 | 1056 | 1191 | 540 | 308-09 | 1133-34 | 47 Pramādin . . | 50 Anala . . | ... |
| 4236 | 1057 | 1192 | 541 | 309-10 | 1134-35 | 48 Ānanda . . | 51 Piṅgala . . | 4 Āshāḍha . . |
| 4237 | 1058 | 1193 | 542 | 310-11 | 1135-36 | 49 Rākṣasa . . | 52 Kālayukta . . | ... |
| 4238 | 1059 | 1194 | 543 | 311-12 | *1136-37 | 50 Anala . . | 53 Siddhārthim . . | ... |
| 4239 | 1060 | 1195 | 544 | 312-13 | 1137-38 | 51 Piṅgala . . | 54 Raudra . . | 2 Vaiśākha . . |
| 4240 | 1061 | 1196 | 545 | 313-14 | 1138-39 | 52 Kālayukta . . | 55 Durmati . . | ... |
| 4241 | 1062 | 1197 | 546 | 314-15 | 1139-40 | 53 Siddhārthim . . | 56 Dundubhi . . | 6 Bhādrapada . . |
| 4242 | 1063 | 1198 | 547 | 315-16 | *1140-41 | 54 Raudra . . | 57 Rudhīrōdgārin . . | ... |
| 4243 | 1064 | 1199 | 548 | 316-17 | 1141-42 | 55 Durmati . . | 58 Raktākṣa . . | ... |
| 4244 | 1065 | 1200 | 549 | 317-18 | 1142-43 | 56 Dundubhi . . | 59 Krōdhana . . | 4 Āshāḍha . . |
| 4245 | 1066 | 1201 | 550 | 318-19 | 1143-44 | 57 Rudhīrōdgārin . . | 60 Kṣaya . . | ... |
| 4246 | 1067 | 1202 | 551 | 319-20 | *1144-45 | 58 Raktākṣa . . | 1 Prabhava . . | ... |
| 4247 | 1068 | 1203 | 552 | 320-21 | 1145-46 | 59 Krōdhana . . | 2 Vibhava . . | 3 Jyēṣṭha . . |

† See "Remarks" on page preceding the Table.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 22 Mar. (81) | 3 Tues. | 22 48 7 | 21 Mar. (80) | 2 Mon. | 9941-1635 | 121-4928 | 272-1902 | 4223 |
| 23 Mar. (82) | 5 Thur. | 5 0 16 | 11 Mar. (70) | 0 Sat. | 155-5183 | 5-0284 | 244-1047 | 4224 |
| 23 Mar. (82) | 6 Fri. | 11 12 25 | 28 Feb. (59) | 4 Wed. | 31-2411 | 852-2724 | 213-2826 | 4225 |
| 22 Mar. (82) | 0 Sat. | 17 24 34 | 18 Mar. (78) | 3 Tues. | 65-9236 | 788-2659 | 264-5920 | 4226 |
| 22 Mar. (81) | 1 Sun. | 23 36 43 | 8 Mar. (67) | 1 Sun. | 280-2784 | 671-8016 | 236-5066 | 4227 |
| 23 Mar. (82) | 3 Tues. | 5 48 52 | 25 Feb. (56) | 5 Thur. | 156-0012 | 519-0457 | 205-6833 | 4228 |
| 23 Mar. (82) | 4 Wed. | 12 1 1 | 15 Mar. (74) | 3 Tues. | 9852-0516 | 418-7475 | 254-2560 | 4229 |
| 22 Mar. (82) | 5 Thur. | 18 13 10 | 3 Mar. (63) | 0 Sat. | 9727-7745 | 265-9915 | 223-4328 | 4230 |
| 23 Mar. (82) | 0 Sat. | 0 25 19 | 22 Mar. (81) | 6 Fri. | 9762-4568 | 201-9851 | 274-7432 | 4231 |
| 23 Mar. (82) | 1 Sun. | 6 37 27 | 12 Mar. (71) | 4 Wed. | 9976-8117 | 85-5207 | 246-6577 | 4232 |
| 23 Mar. (82) | 2 Mon. | 12 49 36 | 2 Mar. (61) | 2 Mon. | 191-1665 | 969-0564 | 218-5724 | 4233 |
| 22 Mar. (82) | 3 Tues. | 19 1 45 | 20 Mar. (80) | 1 Sun. | 225-8489 | 905-0499 | 269-8828 | 4234 |
| 23 Mar. (82) | 5 Thur. | 1 13 54 | 9 Mar. (68) | 5 Thur. | 101-5717 | 752-2939 | 239-0596 | 4235 |
| 23 Mar. (82) | 6 Fri. | 7 26 3 | 26 Feb. (57) | 2 Mon. | 9977-2946 | 599-5380 | 208-2363 | 4236 |
| 23 Mar. (82) | 0 Sat. | 13 38 12 | 17 Mar. (76) | 1 Sun. | 11-9770 | 535-5314 | 259-5468 | 4237 |
| 22 Mar. (82) | 1 Sun. | 19 50 21 | 5 Mar. (65) | 5 Thur. | 9887-6999 | 382-7755 | 228-7236 | 4238 |
| 23 Mar. (82) | 3 Tues. | 2 2 30 | 22 Feb. (53) | 2 Mon. | 9763-4226 | 230-1095 | 197-9004 | 4239 |
| 23 Mar. (82) | 4 Wed. | 8 14 39 | 13 Mar. (72) | 1 Sun. | 9798-1050 | 166-0130 | 249-2108 | 4240 |
| 23 Mar. (82) | 5 Thur. | 14 26 48 | 3 Mar. (62) | 6 Fri. | 12-4599 | 49-5488 | 221-1253 | 4241 |
| 22 Mar. (82) | 6 Fri. | 20 38 57 | 21 Mar. (81) | 5 Thur. | 47-1422 | 985-5422 | 272-4358 | 4242 |
| 23 Mar. (82) | 1 Sun. | 2 51 6 | 11 Mar. (70) | 3 Tues. | 261-4971 | 869-0770 | 244-3503 | 4243 |
| 23 Mar. (82) | 2 Mon. | 9 3 15 | 28 Feb. (59) | 0 Sat. | 137-2199 | 716-3219 | 214-5272 | 4244 |
| 23 Mar. (82) | 3 Tues. | 15 15 24 | 19 Mar. (78) | 6 Fri. | 171-9024 | 652-3154 | 204-8375 | 4245 |
| 22 Mar. (82) | 4 Wed. | 21 27 33 | 7 Mar. (67) | 3 Tues. | 47-6251 | 499-5595 | 234-9143 | 4246 |
| 23 Mar. (82) | 6 Fri. | 3 39 42 | 24 Feb. (55) | 0 Sat. | 9923-3480 | 346-9035 | 203-1911 | 4247 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>keśaya</i>) true
lunar months. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4248 | 1069 | 1204 | 553 | 321-22 | 1146-47 | 60 Keshaya . | 3 Śukla . | { 8 Kārttika
9 Mārgaśīrṣa (<i>keś</i>)
12 Phālguna } |
| 4249 | 1070 | 1205 | 554 | 322-23 | 1147-48 | 1 Prabhava . | 4 Pramōḍa . | |
| 4250 | 1071 | 1206 | 555 | 323-24 | *1148-49 | 2 Vibhava . | 5 Prajāpati . | |
| 4251 | 1072 | 1207 | 556 | 324-25 | 1149-50 | 3 Śukla . | 6 Aṅgiras . | ... |
| 4252 | 1073 | 1208 | 557 | 325-26 | 1150-51 | 4 Pramōḍa . | 7 Śrīmukha . | 5 Śrāvaṇa . |
| 4253 | 1074 | 1209 | 558 | 326-27 | 1151-52 | 5 Prajāpati . | 8 Bhāva . | ... |
| 4254 | 1075 | 1210 | 559 | 327-28 | *1152-53 | 6 Aṅgiras . | 9 Yuvan . | ... |
| 4255 | 1076 | 1211 | 560 | 328-29 | 1153-54 | 7 Śrīmukha . | 10 Dhātṛi . | 4 Āshāḍha . |
| 4256 | 1077 | 1212 | 561 | 329-30 | 1154-55 | 8 Bhāva . | 11 Īvara . | ... |
| 4257 | 1078 | 1213 | 562 | 330-31 | 1155-56 | 9 Yuvan . | 12 Bahudhānya . | ... |
| 4258 | 1079 | 1214 | 563 | 331-32 | *1156-57 | 10 Dhātṛi . | 13 Pramāthin . | 2 Vaiśākha . |
| 4259 | 1080 | 1215 | 564 | 332-33 | 1157-58 | 11 Īvara . | 14 Vikrama . | ... |
| 4260 | 1081 | 1216 | 565 | 333-34 | 1158-59 | 12 Bahudhānya . | 15 Vṛisha . | 6 Bhādrapada . |
| 4261 | 1082 | 1217 | 566 | 334-35 | 1159-60 | 13 Pramāthin . | 16 Chitrabhānu† | ... |
| 4262 | 1083 | 1218 | 567 | 335-36 | *1160-61 | 14 Vikrama . | 18 Tārāṇa . | ... |
| 4263 | 1084 | 1219 | 568 | 336-37 | 1161-62 | 15 Vṛisha . | 19 Pārthiva . | 4 Āshāḍha . |
| 4264 | 1085 | 1220 | 569 | 337-38 | 1162-63 | 16 Chitrabhānu . | 20 Vyaya . | ... |
| 4265 | 1086 | 1221 | 570 | 338-39 | 1163-64 | 17 Subhānu . | 21 Sarvajit . | ... |
| 4266 | 1087 | 1222 | 571 | 339-40 | *1164-65 | 18 Tārāṇa . | 22 Sarvadhārin . | 3 Jyēṣṭha . |
| 4267 | 1088 | 1223 | 572 | 340-41 | 1165-66 | 19 Pārthiva . | 23 Virōdhin . | { 7 Āsvina
10 Pousha (<i>keś</i>)
12 Phālguna } |
| 4268 | 1089 | 1224 | 573 | 341-42 | 1166-67 | 20 Vyaya . | 24 Vikṛita . | |
| 4269 | 1090 | 1225 | 574 | 342-43 | 1167-68 | 21 Sarvajit . | 25 Khara . | |
| 4270 | 1091 | 1226 | 575 | 343-44 | *1168-69 | 22 Sarvadhārin . | 26 Nandana . | ... |
| 4271 | 1092 | 1227 | 576 | 344-45 | 1169-70 | 23 Virōdhin . | 27 Vijaya . | 5 Śrāvaṇa . |
| 4272 | 1093 | 1228 | 577 | 345-46 | 1170-71 | 24 Vikṛita . | 28 Jaya . | ... |

† 17 Subhānu was suppressed in the north.

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|---------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and month A. D. | Week-day. | Time of true Mēsha-sath-krānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 23 Mar. (82) | 0 Sat. | 9 51 51 | 15 Mar. (74) | 6 Fri. | 9958-0304 | 282-7970 | 254-5016 | 4248 |
| 23 Mar. (82) | 1 Sun. | 16 4 0 | 4 Mar. (63) | 3 Tues. | 9833-7532 | 129-0410 | 223-6783 | 4249 |
| 22 Mar. (82) | 2 Mon. | 22 16 9 | 22 Mar. (82) | 2 Mon. | 9868-4356 | 66-0346 | 274-0887 | 4250 |
| 23 Mar. (82) | 4 Wed. | 4 28 18 | 12 Mar. (71) | 0 Sat. | 82-7905 | 949-5702 | 246-9033 | 4251 |
| 23 Mar. (82) | 5 Thur. | 10 40 27 | 2 Mar. (61) | 5 Thur. | 297-1453 | 833-1059 | 218-6180 | 4252 |
| 23 Mar. (82) | 6 Fri. | 16 52 36 | 21 Mar. (80) | 4 Wed. | 331-8276 | 769-0994 | 270-1283 | 4253 |
| 22 Mar. (82) | 0 Sat. | 23 4 45 | 9 Mar. (69) | 1 Sun. | 207-5505 | 616-3435 | 239-3051 | 4254 |
| 23 Mar. (82) | 2 Mon. | 5 16 54 | 26 Feb. (57) | 5 Thur. | 83-2734 | 463-5875 | 208-4819 | 4255 |
| 23 Mar. (82) | 3 Tues. | 11 29 3 | 16 Mar. (75) | 3 Tues. | 9779-3237 | 363-2894 | 257-0546 | 4256 |
| 23 Mar. (82) | 4 Wed. | 17 41 12 | 6 Mar. (65) | 1 Sun. | 9993-6786 | 246-8250 | 228-9691 | 4257 |
| 22 Mar. (82) | 5 Thur. | 23 53 21 | 23 Feb. (54) | 5 Thur. | 9869-4024 | 94-0691 | 198-1458 | 4258 |
| 23 Mar. (82) | 0 Sat. | 6 5 30 | 13 Mar. (72) | 4 Wed. | 9904-0838 | 30-0625 | 249-4563 | 4259 |
| 23 Mar. (82) | 1 Sun. | 12 17 39 | 3 Mar. (62) | 2 Mon. | 118-4386 | 913-5983 | 221-3709 | 4260 |
| 23 Mar. (82) | 2 Mon. | 18 29 48 | 22 Mar. (81) | 1 Sun. | 153-1210 | 849-5918 | 272-6813 | 4261 |
| 23 Mar. (83) | 4 Wed. | 0 41 57 | 10 Mar. (70) | 5 Thur. | 28-8439 | 696-8358 | 241-8581 | 4262 |
| 23 Mar. (82) | 5 Thur. | 6 54 6 | 27 Feb. (58) | 2 Mon. | 9904-5667 | 544-0799 | 211-0349 | 4263 |
| 23 Mar. (82) | 6 Fri. | 13 6 15 | 18 Mar. (77) | 1 Sun. | 9939-2491 | 480-0733 | 262-3454 | 4264 |
| 23 Mar. (82) | 0 Sat. | 19 18 24 | 7 Mar. (66) | 5 Thur. | 9814-9719 | 327-3173 | 231-5221 | 4265 |
| 23 Mar. (83) | 2 Mon. | 1 30 33 | 25 Feb. (56) | 3 Tues. | 29-3268 | 210-8530 | 203-4366 | 4266 |
| 23 Mar. (82) | 3 Tues. | 7 42 42 | 15 Mar. (74) | 2 Mon. | 64-0091 | 146-8465 | 255-7471 | 4267 |
| 23 Mar. (82) | 4 Wed. | 13 54 51 | 4 Mar. (63) | 6 Fri. | 9939-7320 | 994-0906 | 223-9239 | 4268 |
| 23 Mar. (82) | 5 Thur. | 20 7 0 | 23 Mar. (82) | 5 Thur. | 9974-4144 | 930-0840 | 275-2343 | 4269 |
| 23 Mar. (83) | 0 Sat. | 2 19 9 | 12 Mar. (72) | 3 Tues. | 188-7692 | 813-6158 | 247-1488 | 4270 |
| 23 Mar. (82) | 1 Sun. | 8 31 18 | 1 Mar. (60) | 0 Sat. | 64-4920 | 660-8638 | 216-3257 | 4271 |
| 23 Mar. (82) | 2 Mon. | 14 43 27 | 20 Mar. (79) | 6 Fri. | 99-1744 | 596-8573 | 267-6361 | 4272 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. |
|------------------|-------|-----------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi
Vikrama. | Mēshādi solar year
in Bengal. | Kollam. | A. D. | Jovian Sāmvatsara. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4273 | 1094 | 1229 | 578 | 346-47 | 1171-72 | 25 Khara . . | 29 Manmatha . | ... |
| 4274 | 1095 | 1230 | 579 | 347-48 | *1172-73 | 26 Nandana . | 30 Durmukha . | 4 Āshāḍha . |
| 4275 | 1096 | 1231 | 580 | 348-49 | 1173-74 | 27 Vijaya . . | 31 Hēmalamba . | ... |
| 4276 | 1097 | 1232 | 581 | 349-50 | 1174-75 | 28 Jaya . . | 32 Vilamba . | ... |
| 4277 | 1098 | 1233 | 582 | 350-51 | 1175-76 | 29 Manmatha . | 33 Vikārin . | 2 Vaiśākha . |
| 4278 | 1099 | 1234 | 583 | 351-52 | *1176-77 | 30 Durmukha . | 34 Śārvarin . | ... |
| 4279 | 1100 | 1235 | 584 | 352-53 | 1177-78 | 31 Hēmalamba . | 35 Plava . . | 6 Bhādrapada |
| 4280 | 1101 | 1236 | 585 | 353-54 | 1178-79 | 32 Vilamba . | 36 Śubhakṛit . | ... |
| 4281 | 1102 | 1237 | 586 | 354-55 | 1179-80 | 33 Vikārin . | 37 Śobhana . | ... |
| 4282 | 1103 | 1238 | 587 | 355-56 | *1180-81 | 34 Śārvarin . | 38 Krōdhin . | 4 Āshāḍha . |
| 4283 | 1104 | 1239 | 588 | 356-57 | 1181-82 | 35 Plava . . | 39 Viśvāvasu . | ... |
| 4284 | 1105 | 1240 | 589 | 357-58 | 1182-83 | 36 Śubhakṛit . | 40 Parābhava . | ... |
| 4285 | 1106 | 1241 | 590 | 358-59 | 1183-84 | 37 Śobhana . | 41 Plavaṅga . | 2 Vaiśākha . |
| 4286 | 1107 | 1242 | 591 | 359-60 | *1184-85 | 38 Krōdhin . | 42 Kilaka . . | ... |
| 4287 | 1108 | 1243 | 592 | 360-61 | 1185-86 | 39 Viśvāvasu . | 43 Saumya . | 6 Bhādrapada |
| 4288 | 1109 | 1244 | 593 | 361-62 | 1186-87 | 40 Parābhava . | 44 Sādhāraṇa . | ... |
| 4289 | 1110 | 1245 | 594 | 362-63 | 1187-88 | 41 Plavaṅga . | 45 Virōdhakṛit . | ... |
| 4290 | 1111 | 1246 | 595 | 363-64 | *1188-89 | 42 Kilaka . . | 46 Paridhāvin . | 5 Śrāvaṇa . |
| 4291 | 1112 | 1247 | 596 | 364-65 | 1189-90 | 33 Saumya . | 47 Pramādin . | ... |
| 4292 | 1113 | 1248 | 597 | 365-66 | 1190-91 | 44 Sādhāraṇa . | 48 Ānanda . | ... |
| 4293 | 1114 | 1249 | 598 | 366-67 | 1191-92 | 45 Virōdhakṛit . | 49 Rākhaṣa . | 3 Jyēṣṭha . |
| 4294 | 1115 | 1250 | 599 | 367-68 | *1192-93 | 46 Paridhāvin . | 50 Anaka . . | ... |
| 4295 | 1116 | 1251 | 600 | 368-69 | 1193-94 | 47 Pramādin . | 51 Piṅgala . | ... |
| 4296 | 1117 | 1252 | 601 | 369-70 | 1194-95 | 48 Ānanda . | 52 Kālayukta . | 2 Vaiśākha . |
| 4297 | 1118 | 1253 | 602 | 370-71 | 1195-96 | 49 Rākhaṣa . | 53 Siddhārthīn . | ... |

LXXXII—Contd.

| COMMENCEMENT OF THE | | | | | | | | |
|---------------------|-----------|-------------------------------|--|-----------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | | Kāli. |
| Day and month A. D. | Week-day. | Time of true Mēsha-samkrānti. | Day and month A. D. | Week-day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | |
| | | H. M. S. | | | | | | 1 |
| 23 Mar. (82) | 3 Tues. | 20 55 36 | 9 Mar. (88) | 3 Tues. | 9974-9973 | 444-1013 | 236-8129 | 4273 |
| 23 Mar. (83) | 5 Thur. | 3 7 45 | 26 Feb. (87) | 0 Sat. | 9850-6201 | 291-3454 | 205-9806 | 4274 |
| 23 Mar. (82) | 6 Fri. | 9 19 54 | 16 Mar. (76) | 6 Fri. | 9885-3025 | 227-3389 | 257-3001 | 4275 |
| 23 Mar. (82) | 0 Sat. | 15 32 3 | 6 Mar. (65) | 4 Wed. | 99-6574 | 110-8745 | 229-2147 | 4276 |
| 23 Mar. (82) | 1 Sun. | 21 44 11 | 23 Feb. (54) | 1 Sun. | 9975-3801 | 958-1187 | 198-1914 | 4277 |
| 23 Mar. (83) | 3 Tues. | 3 56 20 | 13 Mar. (73) | 0 Sat. | 10-0625 | 894-1120 | 249-7018 | 4278 |
| 23 Mar. (82) | 4 Wed. | 10 8 29 | 3 Mar. (62) | 5 Thur. | 224-4174 | 777-6478 | 221-6164 | 4279 |
| 23 Mar. (82) | 5 Thur. | 16 20 38 | 22 Mar. (81) | 4 Wed. | 259-0998 | 713-6413 | 272-9269 | 4280 |
| 23 Mar. (82) | 6 Fri. | 22 32 47 | 11 Mar. (70) | 1 Sun. | 134-8226 | 560-8853 | 242-1036 | 4281 |
| 23 Mar. (83) | 1 Sun. | 4 44 56 | 28 Feb. (59) | 5 Thur. | 10-5455 | 408-1294 | 211-2804 | 4282 |
| 23 Mar. (82) | 2 Mon. | 10 57 5 | 18 Mar. (77) | 4 Wed. | 45-2279 | 344-1228 | 262-5909 | 4283 |
| 23 Mar. (82) | 3 Tues. | 17 9 14 | 7 Mar. (66) | 1 Sun. | 9920-9507 | 191-3668 | 231-7677 | 4284 |
| 23 Mar. (82) | 4 Wed. | 23 21 23 | 24 Feb. (55) | 5 Thur. | 9796-6735 | 38-6109 | 200-9444 | 4285 |
| 23 Mar. (83) | 6 Fri. | 5 33 32 | 15 Mar. (75) | 5 Thur. | 169-9879 | 10-8960 | 254-9926 | 4286 |
| 23 Mar. (82) | 0 Sat. | 11 45 41 | 4 Mar. (63) | 2 Mon. | 45-7108 | 858-1401 | 224-1694 | 4287 |
| 23 Mar. (82) | 1 Sun. | 17 57 50 | 23 Mar. (82) | 1 Sun. | 80-3931 | 794-1335 | 275-4799 | 4288 |
| 24 Mar. (83) | 3 Tues. | 0 9 59 | 13 Mar. (72) | 6 Fri. | 294-7480 | 677-6693 | 247-3944 | 4289 |
| 23 Mar. (83) | 4 Wed. | 6 22 8 | 1 Mar. (61) | 3 Tues. | 170-4708 | 524-9133 | 216-5712 | 4290 |
| 23 Mar. (82) | 5 Thur. | 12 34 17 | 19 Mar. (78) | 1 Sun. | 9866-5213 | 424-6151 | 265-1438 | 4291 |
| 23 Mar. (82) | 6 Fri. | 18 46 26 | 8 Mar. (67) | 5 Thur. | 9742-2440 | 271-8592 | 234-3207 | 4292 |
| 24 Mar. (83) | 1 Sun. | 0 58 35 | 26 Feb. (57) | 3 Tues. | 9956-5989 | 155-3949 | 206-2352 | 4293 |
| 23 Mar. (83) | 2 Mon. | 7 10 44 | 16 Mar. (76) | 2 Mon. | 9991-2813 | 91-3884 | 257-5456 | 4294 |
| 23 Mar. (82) | 3 Tues. | 13 22 53 | 6 Mar. (65) | 0 Sat. | 205-6361 | 974-9241 | 229-4602 | 4295 |
| 23 Mar. (82) | 4 Wed. | 19 35 2 | 23 Feb. (54) | 4 Wed. | 81-3589 | 822-1741 | 198-6370 | 4296 |
| 24 Mar. (83) | 6 Fri. | 1 47 11 | 14 Mar. (73) | 3 Tues. | 116-0413 | 758-1608 | 249-9474 | 4297 |

TABLE

| CONCURRENT YEAR. | | | | | | | Intercalated
(<i>adhika</i>) and
suppressed
(<i>kshaya</i>) true
lunar months. | |
|------------------|-------|--------------------|----------------------------------|---------|-----------|---------------------|--|---------------------|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshadi solar year
in Bengal. | Kollam. | A. D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | | Northern
system. |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8 |
| 4298 | 1119 | 1254 | 603 | 371-72 | *1196-97 | 50 Anala . . | 54 Raudra . . | 6 Bhādrapada |
| 4299 | 1120 | 1255 | 604 | 372-73 | 1197-98 | 51 Piṅgala . . | 55 Durmati . . | ... |
| 4300 | 1121 | 1256 | 605 | 373-74 | 1198-99 | 52 Kālayukta . . | 56 Dundubhi . . | ... |
| 4301 | 1122 | 1257 | 606 | 374-75 | 1199-1200 | 53 Siddhārthin . . | 57 Rudhirōdgārin . . | 4 Āshāḍha . . |
| 4302 | 1123 | 1258 | 607 | 375-76 | *1200-01 | 54 Raudra . . | 58 Raktāksha . . | ... |

LXXXII—Concl'd.

| COMMENCEMENT OF THE | | | | | | | | |
|------------------------|---------------|---------------------------------------|---|---------------|-----------|----------|----------|-------|
| SOLAR YEAR. | | | LUNI-SOLAR YEAR (MEAN SUNRISE OF CIVIL DAY ON WHICH
CHAITRA ŚUKLA 1 ENDS). | | | | | Kali. |
| Day and
month A. D. | Week-
day. | Time of true
Mēsha-sam-
krānti. | Day and
month A. D. | Week-
day. | a | b | c | |
| 13 | 14 | 17 | 19 | 20 | 23 | 24 | 25 | 1 |
| | | H. M. S. | | | | | | |
| 23 Mar. (83) | 0 Sat. . | 7 59 20 | 2 Mar. (82) | 0 Sat. . | 9991-7641 | 605-4056 | 219-1242 | 4298 |
| 23 Mar. (82) | 1 Sun. . | 14 11 29 | 21 Mar. (80) | 6 Fri. . | 26-4465 | 541-3991 | 270-4346 | 4299 |
| 23 Mar. (82) | 2 Mon. | 20 23 38 | 10 Mar. (69) | 3 Tues. | 9902-1694 | 388-6432 | 239-6115 | 4300 |
| 24 Mar. (83) | 4 Wed. | 2 35 47 | 27 Feb. (58) | 0 Sat. . | 9777-8923 | 235-8872 | 208-7660 | 4301 |
| 23 Mar. (83) | 5 Thur. | 8 47 56 | 17 Mar. (77) | 6 Fri. . | 9812-5747 | 171-8807 | 260-0765 | 4302 |

TABLE LXXXIII A.

DURATION AND COLLECTIVE DURATION OF TRUE SOLAR MONTHS, WITH INCREASE OF *a*, *b*, *c* AT EACH TRUE SAMKRĀNTI.

By the Brahma-Siddhānta.

Calculated for the year K. Y. 4500, (expired), A. D. 899—900.

a in 10,000 *ths* of circle; *b* and *c* in 1,000 *ths*; "*saṁ*" = solar *saṁkrānti*.

| Luni-solar month
(ending at the
second of the
two solar sa-
krāntis connec-
ted with it). | At true solar
saṁkrānti. | Collective duration in days, hours, etc., and collective
increase of a, b, c from true Mēsha-saṁkrānti to
each true saṁkrānti. | | | | | | | At true solar
saṁkrānti. | Length of solar month preceding each true saṁkrānti,
and increase of a, b, c between each
such saṁkrānti. | | | | |
|--|--|--|-------|----------|-----------|----------|----------|------------------------------------|-----------------------------|---|----------|-----------|----------|---------|
| | | Day. | Week. | H. M. S. | a | b | c | Day. | | Week. | H. M. S. | a | b | c |
| | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 1. Chaitra | { Mina-saṁ. (of
previous year),
Mēsha-saṁ. . | 0 | 0 | 0 0 0 | 0 | 0 | 0 | Mēsha-saṁ. . | 0 | 0 | 0 | 0 | 0 | 0 |
| 2. Vaiśākha | { Vṛṣabha-saṁ . | 30 | (2) | 22 21 9 | 474-3381 | 122-5490 | 84-6833 | Vṛṣabha-saṁ. | 30 | (2) | 22 21 9 | 474-3381 | 122-5490 | 84-6833 |
| 3. Jyēṣṭha | { Mithuna-saṁ. . | 62 | (6) | 8 15 57 | 1111-7956 | 262-5752 | 170-6856 | Mithuna-saṁ. . | 31 | (3) | 9 54 48 | 637-4575 | 140-0262 | 86-0023 |
| 4. Āshāḍha | { Karka-saṁ. . | 93 | (2) | 23 12 15 | 1820-1580 | 410-2049 | 257-2610 | Karka-saṁ. . | 31 | (3) | 14 56 18 | 708-3624 | 147-6297 | 86-5754 |
| 5. Śrāvapa | { Siṁha-saṁ. . | 125 | (6) | 10 42 48 | 2480-1360 | 552-8492 | 343-4452 | Siṁha-saṁ. . | 31 | (3) | 11 30 33 | 659-9780 | 142-4443 | 86-1842 |
| 6. Bhādrapada | { Kanyā-saṁ. . | 156 | (2) | 11 41 2 | 2991-4178 | 679-1575 | 428-4273 | Kanyā-saṁ. . | 31 | (3) | 0 58 15 | 511-2818 | 126-5083 | 84-9821 |
| 7. Āvina | { Tulā-saṁ. . | 186 | (4) | 22 35 29 | 3304-2747 | 784-4003 | 511-8051 | Tulā-saṁ. . | 30 | (2) | 10 54 27 | 312-8569 | 105-2424 | 83-3778 |
| 8. Kārtika | { Vṛśchika-saṁ. | 216 | (6) | 20 28 50 | 3433-4472 | 869-9574 | 593-6979 | Vṛśchika-saṁ. | 29 | (1) | 21 53 21 | 129-1725 | 85-5571 | 81-8928 |
| 9. Mārgaśira | { Dhanu-saṁ. . | 246 | (1) | 8 0 47 | 3416-4906 | 939-8537 | 674-4092 | Dhanu-saṁ. . | 29 | (1) | 11 31 57 | 9983-0434 | 69-8963 | 80-7113 |
| 10. Pausa | { Makara-saṁ. . | 275 | (2) | 16 6 58 | 3351-2241 | 4-5725 | 754-7299 | Makara-saṁ. . | 29 | (1) | 8 6 11 | 9934-7335 | 64-7188 | 80-3207 |
| 11. Māgha | { Kumbha-saṁ. | 305 | (4) | 2 49 9 | 3322-5644 | 73-2145 | 835-3466 | Kumbha-saṁ. . | 29 | (1) | 10 42 11 | 9971-3403 | 68-6420 | 80-6167 |
| 12. Phālguna | { Mīna-saṁ. . | 334 | (5) | 22 4 25 | 3414-5580 | 154-7871 | 916-9387 | Mīna-saṁ. . | 29 | (1) | 19 15 16 | 91-9936 | 81-5726 | 81-5921 |
| 1. Chaitra (of
following year). | { Mēsha-saṁ. (of
following year). | 365 | (1) | 6 12 9 | 3688-2056 | 255-8315 | 1000-0 | Mēsha-saṁ. (of
following year). | 30 | (2) | 8 7 44 | 273-6476 | 101-0407 | 83-0606 |

TABLE LXXXIII B.

VALUE OF c AND OF " EQUATION c " AT THE SEVERAL TRUE SAMKRĀNTIS.

Correct for K. Y. 4000, A. D. 899-900.

 c in 1,000ths of circle, " equation c " in 10,000ths.

| Samkrānti. | c | " Equation c ." |
|------------------|----------|-------------------|
| Mēsha-sam. . | 277·6064 | 0·9037 |
| Vṛishabha-sam. . | 362·2899 | 14·4355 |
| Mithuna-sam. . | 448·2921 | 41·1356 |
| Karka-sam. . | 534·8676 | 73·5542 |
| Simha-sam. . | 621·0519 | 102·0578 |
| Kanyā-sam. . | 706·0241 | 118·5381 |
| Tulā-sam. . | 789·4020 | 118·9561 |
| Vṛiśchika-sam. . | 871·2948 | 104·1144 |
| Dhanus-sam. . | 952·0062 | 78·3666 |
| Makara-sam. . | 32·3264 | 48·2336 |
| Kumbha-sam. . | 112·9432 | 21·0624 |
| Mina-sam. . | 194·5355 | 3·6464 |

TABLE LXXXIII C.

EXACT VALUE OF c AND OF " EQUATION c " AT THE MOMENT OF TRUE MĒSHA-SAMKRĀNTI AT BEGINNING OF EACH CENTURY K. Y. c in 1,000ths of circle. " Equation c " in 10,000ths.

| K. Y. | A. D. | c | " Eqn. c ." |
|-------|-----------|----------|---------------|
| 3700 | 599-600 | 277·6399 | 0·9347 |
| 3800 | 699-700 | 277·6287 | 0·9340 |
| 3900 | 799-800 | 277·6175 | 0·9333 |
| 4000 | 899-900 | 277·6064 | 0·9326 |
| 4100 | 999-1000 | 277·5952 | 0·9319 |
| 4200 | 1099-1100 | 277·5840 | 0·9312 |
| 4300 | 1199-1200 | 277·5728 | 0·9305 |

TABLES LXXXIV, LXXXV.

" EQUATION *b* " AND " EQUATION *c* " IN WHOLE NUMBERS BY THE BRAHMA-SIDDHĀNTA AND
SIDDHĀNTA-SIRĪMAṆI.

Corresponding to Tables VI, VII, " Indian Calendar."

For close detail Tables LV, LVI, (Vol. XV above) are to be used.

" Arg." = moon's (*b*) or sun's (*c*) mean anom. in 1000ths of circle.

TABLE LXXXIV.

LUNAR " EQUATION *b*."

| Arg. | Eqn. | Arg. |
|------|------|------|
| 0 | 140 | 500 |
| 10 | 149 | 490 |
| 20 | 158 | 480 |
| 30 | 166 | 470 |
| 40 | 174 | 460 |
| 50 | 183 | 450 |
| 60 | 191 | 440 |
| 70 | 199 | 430 |
| 80 | 207 | 420 |
| 90 | 214 | 410 |
| 100 | 222 | 400 |
| 110 | 229 | 390 |
| 120 | 235 | 380 |
| 130 | 241 | 370 |
| 140 | 247 | 360 |
| 150 | 253 | 350 |
| 160 | 258 | 340 |
| 170 | 262 | 330 |
| 180 | 266 | 320 |
| 190 | 270 | 310 |
| 200 | 273 | 300 |
| 210 | 275 | 290 |
| 220 | 277 | 280 |
| 230 | 279 | 270 |
| 240 | 279 | 260 |
| 250 | 280 | 250 |

| Arg. | Eqn. | Arg. |
|------|------|------|
| 500 | 140 | 1000 |
| 510 | 131 | 990 |
| 520 | 122 | 980 |
| 530 | 114 | 970 |
| 540 | 105 | 960 |
| 550 | 97 | 950 |
| 560 | 88 | 940 |
| 570 | 80 | 930 |
| 580 | 73 | 920 |
| 590 | 65 | 910 |
| 600 | 58 | 900 |
| 610 | 51 | 890 |
| 620 | 44 | 880 |
| 630 | 38 | 870 |
| 640 | 32 | 860 |
| 650 | 27 | 850 |
| 660 | 22 | 840 |
| 670 | 17 | 830 |
| 680 | 13 | 820 |
| 690 | 10 | 810 |
| 700 | 7 | 800 |
| 710 | 4 | 790 |
| 720 | 2 | 780 |
| 730 | 1 | 770 |
| 740 | 0 | 760 |
| 750 | 0 | 750 |

TABLE LXXXV.

SOLAR " EQUATION *c*."

| Arg. | Eqn. | Arg. |
|------|------|------|
| 0 | 60 | 500 |
| 10 | 58 | 490 |
| 20 | 53 | 480 |
| 30 | 49 | 470 |
| 40 | 46 | 460 |
| 50 | 42 | 450 |
| 60 | 38 | 440 |
| 70 | 34 | 430 |
| 80 | 31 | 420 |
| 90 | 28 | 410 |
| 100 | 25 | 400 |
| 110 | 22 | 390 |
| 120 | 19 | 380 |
| 130 | 16 | 370 |
| 140 | 14 | 360 |
| 150 | 12 | 350 |
| 160 | 9 | 340 |
| 170 | 7 | 330 |
| 180 | 6 | 320 |
| 190 | 4 | 310 |
| 200 | 3 | 300 |
| 210 | 2 | 290 |
| 220 | 1 | 280 |
| 230 | 0 | 270 |
| 240 | 0 | 260 |
| 250 | 0 | 250 |

| Arg. | Eqn. | Arg. |
|------|------|------|
| 500 | 60 | 1000 |
| 510 | 64 | 990 |
| 520 | 68 | 980 |
| 530 | 72 | 970 |
| 540 | 75 | 960 |
| 550 | 79 | 950 |
| 560 | 82 | 940 |
| 570 | 86 | 930 |
| 580 | 89 | 920 |
| 590 | 93 | 910 |
| 600 | 96 | 900 |
| 610 | 99 | 890 |
| 620 | 102 | 880 |
| 630 | 104 | 870 |
| 640 | 107 | 860 |
| 650 | 109 | 850 |
| 660 | 111 | 840 |
| 670 | 113 | 830 |
| 680 | 115 | 820 |
| 690 | 117 | 810 |
| 700 | 118 | 800 |
| 710 | 119 | 790 |
| 720 | 120 | 780 |
| 730 | 120 | 770 |
| 740 | 121 | 760 |
| 750 | 121 | 750 |

AUXILIARY TABLE.

| Difference
in Equa-
tion. | Last figure of argument | | | | | | | | | |
|---------------------------------|-------------------------|---|--------|---|--------|---|--------|---|--------|--|
| | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | |
| | Add or subtract | | | | | | | | | |
| 9 | 8 | 7 | 6 | 5 | 4 or 5 | 4 | 3 | 2 | 1 | |
| 8 | 7 | 6 | 6 | 5 | 4 | 3 | 2 | 2 | 1 | |
| 7 | 6 | 6 | 5 | 4 | 3 or 4 | 3 | 2 | 1 | 1 | |
| 6 | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 1 | 1 | |
| 5 | 4 or 5 | 4 | 3 or 4 | 3 | 2 or 3 | 2 | 1 or 2 | 1 | 0 or 1 | |
| 4 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 0 | |
| 3 | 3 | 2 | 2 | 2 | 1 or 2 | 1 | 1 | 1 | 0 | |
| 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | |
| 1 | 1 | 1 | 1 | 1 | 0 or 1 | 0 | 0 | 0 | 0 | |

TABLE LXXXVI.

VALUE OF a , b , c AT BEGINNING OF CENTURIES OF THE KALIYUGA, BY THE BRAHMA-SIDDHANTA.

| K. Y.
Century. | Begin-
ning in
A.D. | Week-
day. | a | b | c |
|-------------------|---------------------------|---------------|-----------|----------|----------|
| 37 | 599 | 0 | 6028-1929 | 719-2529 | 282-9906 |
| 38 | 699 | 6 | 4900-0921 | 308-0530 | 283-3962 |
| 39 | 799 | 6 | 3433-3593 | 860-5614 | 281-0640 |
| 40 | 899 | 6 | 2305-2584 | 440-3615 | 281-4695 |
| 41 | 999 | 6 | 1177-1576 | 38-1616 | 281-8751 |
| 42 | 1099 | 6 | 49-0567 | 626-9616 | 282-2807 |
| 43 | 1199 | 0 | 8920-9559 | 215-7617 | 282-6863 |

TABLE LXXXVII.

INCREASE OF a , b , c FOR YEARS OF KALIYUGA CENTURY.

* = year of 366 days.

| Year. | Week-
day. | a | b | c | Year. | Week-
day. | a | b | c |
|-------|---------------|-----------|----------|----------|-------|---------------|-----------|----------|----------|
| 0 | 0 | 0 | 0 | 0 | 30 | 3 | 729-2961 | 683-8984 | 0-6759 |
| 1 | 1 | 3600-6747 | 246-4522 | 999-2925 | 31 | 4 | 4329-9708 | 930-3505 | 999-9683 |
| *2 | 2 | 7201-3494 | 492-9043 | 998-5849 | 32 | 5 | 7930-6455 | 176-8027 | 999-2608 |
| 3 | 4 | 1140-6560 | 775-6482 | 0-6151 | *33 | 6 | 1531-3202 | 423-2549 | 998-5533 |
| 4 | 5 | 4741-3307 | 22-1003 | 999-9076 | 34 | 1 | 5470-6268 | 705-9987 | 0-5835 |
| 5 | 6 | 8342-0054 | 268-5525 | 999-2001 | 35 | 2 | 9071-3015 | 952-4509 | 999-8759 |
| *6 | 0 | 1942-6800 | 515-0047 | 998-4825 | 36 | 3 | 2671-9762 | 198-9030 | 999-1684 |
| 7 | 2 | 5881-9867 | 797-7485 | 0-5227 | *37 | 4 | 6272-6509 | 445-3552 | 998-4609 |
| 8 | 3 | 9482-6614 | 44-2007 | 999-8152 | 38 | 6 | 211-9575 | 728-0990 | 0-4911 |
| 9 | 4 | 3083-3360 | 290-6528 | 999-1077 | 39 | 0 | 3812-6322 | 974-5512 | 999-7836 |
| *10 | 5 | 6684-0107 | 537-1050 | 998-4001 | 40 | 1 | 7413-3069 | 221-0034 | 999-0760 |
| 11 | 0 | 623-3174 | 819-8488 | 0-4303 | *41 | 2 | 1013-9815 | 467-4555 | 998-3685 |
| 12 | 1 | 4223-9921 | 66-3010 | 999-7228 | 42 | 4 | 4953-2882 | 750-1994 | 0-3987 |
| *13 | 2 | 7824-6667 | 312-7532 | 999-0153 | 43 | 5 | 8553-9629 | 996-6515 | 999-6912 |
| 14 | 4 | 1763-9734 | 595-4970 | 1-0455 | *44 | 6 | 2154-6376 | 243-1037 | 998-9836 |
| 15 | 5 | 5364-6481 | 841-9492 | 0-3379 | 45 | 1 | 6093-9442 | 525-8475 | 1-0138 |
| 16 | 6 | 8965-3227 | 88-4013 | 999-6304 | 46 | 2 | 9694-6189 | 772-2997 | 0-3063 |
| *17 | 0 | 2565-9974 | 334-8535 | 998-9229 | 47 | 3 | 3295-2936 | 18-7519 | 999-5988 |
| 18 | 2 | 6505-3041 | 617-5973 | 0-9531 | *48 | 4 | 6895-9682 | 265-2040 | 998-8912 |
| 19 | 3 | 105-9788 | 864-0495 | 0-2455 | 49 | 6 | 835-2749 | 547-9479 | 0-9214 |
| 20 | 4 | 3706-6534 | 110-5017 | 999-5380 | 50 | 0 | 4435-9496 | 794-4000 | 0-2139 |
| *21 | 5 | 7307-3281 | 356-9539 | 998-8305 | 51 | 1 | 8036-6243 | 40-8522 | 999-5064 |
| 22 | 0 | 1246-6348 | 639-6977 | 0-8607 | *52 | 2 | 1637-2989 | 287-3044 | 998-7988 |
| 23 | 1 | 4847-3094 | 886-1499 | 0-1531 | 53 | 4 | 5576-6056 | 570-0482 | 0-8290 |
| 24 | 2 | 8447-9841 | 132-6020 | 999-4456 | 54 | 5 | 9177-2803 | 816-5004 | 0-1215 |
| *25 | 3 | 2048-6588 | 379-0542 | 998-7381 | 55 | 6 | 2777-9549 | 62-9526 | 999-4140 |
| 26 | 5 | 5987-9655 | 661-7980 | 0-7683 | *56 | 0 | 6378-6296 | 309-4047 | 998-7064 |
| 27 | 6 | 9588-6401 | 908-2502 | 0-0607 | *57 | 2 | 317-9363 | 592-1485 | 0-7366 |
| 28 | 0 | 3189-3148 | 154-7024 | 999-3532 | 58 | 3 | 3918-6110 | 838-6007 | 0-0291 |
| *29 | 1 | 0789-9895 | 401-1545 | 998-6457 | 59 | 4 | 7519-2856 | 85-0529 | 999-3216 |

TABLE LXXXVIII.

TABLE LXXXVII—Contd.

VALUES OF a , b , c PER DAY FROM MINA 1 TO
MESHA 2, THE DAY OF MEAN MESHA-SAMKRĀNTI.

| Year. | Week-day. | a | b | c | No. of days interval from 0 Mēsha. | Month and day. | Week-day. | a | b | c |
|-------|-----------|-----------|----------|----------|------------------------------------|----------------|-----------|-----------|----------|----------|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 |
| *60 | 5 | 1119-9603 | 331-5051 | 998-6140 | | | | | | |
| 61 | 0 | 5059-2670 | 614-2489 | 0-6442 | | | | | | |
| 62 | 1 | 8659-9416 | 860-7011 | 999-9367 | | | | | | |
| 63 | 2 | 2260-6183 | 107-1532 | 999-2292 | | | | | | |
| *64 | 3 | 5861-2910 | 353-6054 | 998-5216 | | | | | | |
| 65 | 5 | 9800-5977 | 636-3492 | 0-5518 | 29 | Mina 1 | 4 | 9502-4085 | 874-9589 | 915-1286 |
| 66 | 6 | 3401-2723 | 882-8014 | 999-8443 | 28 | " 2 | 5 | 9841-0404 | 911-2506 | 917-8664 |
| 67 | 0 | 7001-9470 | 129-2536 | 999-1368 | 27 | " 3 | 6 | 179-6724 | 947-5422 | 920-6042 |
| *68 | 1 | 602-6217 | 375-7057 | 998-4292 | 26 | " 4 | 0 | 518-3044 | 983-8339 | 923-3419 |
| 69 | 3 | 4541-9283 | 658-4496 | 0-4594 | 25 | " 5 | 1 | 856-9364 | 20-1255 | 926-0797 |
| 70 | 4 | 8142-6030 | 904-9017 | 999-7519 | | | | | | |
| *71 | 5 | 1743-2777 | 151-3539 | 999-0444 | 24 | " 6 | 2 | 1195-5684 | 56-4172 | 928-8175 |
| 72 | 0 | 5682-5844 | 434-0977 | 1-0746 | 23 | " 7 | 3 | 1534-2004 | 92-7088 | 931-5553 |
| 73 | 1 | 9283-2590 | 680-5499 | 0-3670 | 22 | " 8 | 4 | 1872-8324 | 129-0005 | 934-2931 |
| 74 | 2 | 2883-9337 | 927-0021 | 999-6595 | 21 | " 9 | 5 | 2211-4643 | 165-2921 | 937-0309 |
| | | | | | 20 | " 10 | 6 | 2550-0963 | 201-5838 | 939-7687 |
| *75 | 3 | 6484-6084 | 173-4542 | 998-9520 | | | | | | |
| 76 | 5 | 423-9150 | 456-1981 | 0-9822 | | | | | | |
| 77 | 6 | 4024-5897 | 702-6502 | 0-2746 | 19 | " 11 | 0 | 2888-7283 | 237-8754 | 942-5065 |
| 78 | 0 | 7625-2644 | 949-1024 | 999-5671 | 18 | " 12 | 1 | 3227-3603 | 274-1671 | 945-2442 |
| *79 | 1 | 1225-9391 | 195-5546 | 998-8596 | 17 | " 13 | 2 | 3565-9923 | 310-4587 | 947-9820 |
| | | | | | 16 | " 14 | 3 | 3904-6243 | 346-7504 | 950-7198 |
| | | | | | 15 | " 15 | 4 | 4243-2563 | 383-0420 | 953-4576 |
| 80 | 3 | 5165-2457 | 478-2984 | 0-8898 | | | | | | |
| 81 | 4 | 8765-9204 | 724-7506 | 0-1822 | | | | | | |
| 82 | 5 | 2366-5951 | 971-2027 | 999-4747 | | | | | | |
| *83 | 6 | 5967-2698 | 217-6549 | 998-7672 | 14 | " 16 | 5 | 4581-8882 | 419-3336 | 956-1954 |
| 84 | 1 | 9906-5764 | 500-3987 | 0-7974 | 13 | " 17 | 6 | 4920-5202 | 455-6253 | 958-9382 |
| | | | | | 12 | " 18 | 0 | 5259-1522 | 491-9169 | 961-6710 |
| | | | | | 11 | " 19 | 1 | 5597-7842 | 528-2086 | 964-4088 |
| 85 | 2 | 3507-2511 | 746-8509 | 0-0898 | 10 | " 20 | 2 | 5936-4162 | 564-5002 | 967-1465 |
| 86 | 3 | 7107-9258 | 993-3031 | 999-3823 | | | | | | |
| *87 | 4 | 708-6004 | 239-7552 | 998-8748 | | | | | | |
| 88 | 6 | 4647-9071 | 522-4991 | 0-7050 | | | | | | |
| 89 | 0 | 8248-5818 | 768-9512 | 999-9974 | 9 | " 21 | 3 | 6275-0482 | 600-7919 | 969-8843 |
| | | | | | 8 | " 22 | 4 | 6613-6801 | 637-0835 | 972-6221 |
| | | | | | 7 | " 23 | 5 | 6952-3121 | 673-3752 | 975-3599 |
| 90 | 1 | 1849-2565 | 15-4034 | 999-2899 | 6 | " 24 | 6 | 7290-9441 | 709-6668 | 978-0977 |
| *91 | 2 | 5449-9311 | 261-8556 | 998-5824 | 5 | " 25 | 0 | 7629-5761 | 745-9585 | 980-8355 |
| 92 | 4 | 9389-2378 | 544-5994 | 0-6126 | | | | | | |
| 93 | 5 | 2989-9125 | 791-0516 | 999-9050 | | | | | | |
| 94 | 6 | 6590-5871 | 37-8038 | 999-1975 | | | | | | |
| *95 | 0 | 191-2618 | 283-9559 | 998-4900 | 4 | " 26 | 1 | 7968-2081 | 782-2501 | 983-5733 |
| 96 | 2 | 4130-5685 | 566-6997 | 0-5202 | 3 | " 27 | 2 | 8306-8401 | 818-5418 | 986-3111 |
| 97 | 3 | 7731-2431 | 813-1519 | 999-8126 | 2 | " 28 | 3 | 8645-4721 | 854-8334 | 989-0488 |
| 98 | 4 | 1331-9178 | 59-6041 | 999-1051 | 1 | " 29 | 4 | 8984-1040 | 891-1251 | 991-7866 |
| *99 | 5 | 4932-5925 | 306-0563 | 998-3976 | | | | | | |
| 100 | 0 | 8671-9902 | 588-8001 | 0-4278 | | | | | | |
| | | | | | | Mēsha 0 | 5 | 9322-7360 | 927-4167 | 994-5244 |
| | | | | | | " 1 | 6 | 9661-8680 | 963-7084 | 997-2622 |
| | | | | | | " 2 | 0 | 0 | 0 | 0 |

TABLE LXXXIX.

SUN'S EQUATION OF THE CENTRE AND SINE-VALUES ACCORDING TO THE BRAHMA-SIDDHANTA.

| Serial
No. of
sine. | SUN'S MEAN ANOM. | | SINE OF ANOM.
ANGLE. | | EQUATION. | | SUN'S MEAN ANOM. | | Serial
No. of
sine. |
|---------------------------|------------------|--------|-------------------------|-------|------------|--------------------------------------|------------------|--------|---------------------------|
| | | | Value
in
minutes. | Diff. | Equation. | Difference
per minute
of anom. | | | |
| 1 | 2 | | 3 | 4 | 5 | 6 | 7 | | 1 |
| | ° / | ° / | ' | ' | ° / " | " | ° / | ° / | |
| 0 | 0 0 | 180 0 | 0 | | 0 0 0 | | 180 0 | 360 0 | 0 |
| 1 | 3 45 | 176 15 | 214 | 214 | 0 8 32-50 | 2-27 | 183 45 | 356 15 | 1 |
| 2 | 7 30 | 172 30 | 427 | 213 | 0 17 2-61 | 2-2760 | 187 30 | 352 30 | 2 |
| 3 | 11 15 | 168 45 | 638 | 211 | 0 25 27-92 | 2-2458 | 191 15 | 348 45 | 3 |
| 4 | 15 0 | 165 0 | 846 | 208 | 0 33 46-05 | 2-2128 | 195 0 | 345 0 | 4 |
| 5 | 18 45 | 161 15 | 1051 | 205 | 0 41 57-02 | 2-1822 | 198 45 | 341 15 | 5 |
| 6 | 22 30 | 157 30 | 1251 | 200 | 0 49 55-97 | 2-1287 | 202 30 | 337 30 | 6 |
| 7 | 26 15 | 153 45 | 1446 | 195 | 0 57 42-97 | 2-0755 | 206 15 | 333 45 | 7 |
| 8 | 30 0 | 150 0 | 1635 | 189 | 1 5 15-60 | 2-0117 | 210 0 | 330 0 | 8 |
| 9 | 33 45 | 146 15 | 1817 | 182 | 1 12 31-46 | 1-9372 | 213 45 | 326 15 | 9 |
| 10 | 37 30 | 142 30 | 1991 | 174 | 1 19 28-17 | 1-8520 | 217 30 | 322 30 | 10 |
| 11 | 41 15 | 138 45 | 2156 | 165 | 1 26 3-32 | 1-7562 | 221 15 | 318 45 | 11 |
| 12 | 45 0 | 135 0 | 2312 | 156 | 1 32 16-92 | 1-6604 | 225 0 | 315 0 | 12 |
| 13 | 48 45 | 131 15 | 2459 | 147 | 1 38 8-96 | 1-5646 | 228 45 | 311 15 | 13 |
| 14 | 52 30 | 127 30 | 2594 | 135 | 1 43 32-27 | 1-4369 | 232 30 | 307 30 | 14 |
| 15 | 56 15 | 123 45 | 2719 | 125 | 1 48 31-62 | 1-3305 | 236 15 | 303 45 | 15 |
| 16 | 60 0 | 120 0 | 2832 | 113 | 1 53 2-24 | 1-2028 | 240 0 | 300 0 | 16 |
| 17 | 63 45 | 116 15 | 2933 | 101 | 1 57 4-12 | 1-0750 | 243 45 | 296 15 | 17 |
| 18 | 67 30 | 112 30 | 3021 | 88 | 2 0 34-87 | 0-9367 | 247 30 | 292 30 | 18 |
| 19 | 71 15 | 108 45 | 3096 | 75 | 2 3 34-49 | 0-7982 | 251 15 | 288 45 | 19 |
| 20 | 75 0 | 105 0 | 3159 | 63 | 2 6 5-36 | 0-6706 | 255 0 | 285 0 | 20 |
| 21 | 78 45 | 101 15 | 3207 | 48 | 2 8 1-90 | 0-5184 | 258 45 | 281 15 | 21 |
| 22 | 82 30 | 97 30 | 3242 | 35 | 2 9 24-14 | 0-3651 | 262 30 | 277 30 | 22 |
| 23 | 86 15 | 93 45 | 3263 | 21 | 2 10 14-43 | 0-2235 | 266 15 | 273 45 | 23 |
| 24 | 90 0 | 90 0 | 3270 | 7 | 2 10 31-19 | 0-0745 | 270 0 | 270 0 | 24 |

No. 12.—THE KEDARPUR PLATE OF SRI-CHANDRA-DEVA.

BY NALINI KANTA BHATTASALI, M.A., CURATOR, DACCA MUSEUM.

In the October number of the *Dacca Review*, for 1912, Mr. J. T. Rankin, I.C.S., published a note given him by the late lamented scholar Bābu Gaṅgāmohan Laskar, M.A., on a copper-plate inscription of Śrī-Chandra-Dēva found at Idilpur in the Faridpur District of Bengal. This note for the first time established the fact that a Buddhist line of kings with the suffix "Chandra" at the end of their names had ruled in East Bengal with Vikramapura as their capital about the 10th or 11th century of the Christian Era and votaries of antiquarian studies in Bengal have been busy thenceforth, discussing the position of the Chandra kings of Vikramapura in the chronology of their country. The discovery of a second copper-plate of Śrī-Chandra-Dēva at Rāmpāl in the Munshiganj sub-division of the Dacca District in April, 1913, by Prof. Rādhā-Gōvinda Basāk, M.A., gave a further impetus to the discussion. Prof. Basāk published this plate first in the *Śrāvana* and *Bhādra* number of the vernacular magazine *Sāhitya* for 1320 B.S. and finally in the *Epigraphia Indica*, above, Vol. XII, page 136.

The present plate is the third of Śrī-Chandra-Dēva. It was found in April, 1919, in excavating earth from a ditch at Kēdārpur in the Mādāripur sub-division of the Faridpur District of Bengal. It was preserved in the custody of the second teacher of the Kēdārpur Middle English School. I came to know of the find from a friend and it has been obtained for the Dacca Museum by the Hon'ble Mr. T. Emerson, C.I.E., I.C.S., through the kind efforts of Mr. J. N. Roy, I.C.S., Magistrate of Faridpur, and Mr. N. Sen, Sub-Divisional Officer of Mādāripur.

The plate measures $8\frac{1}{2}'' \times 7\frac{1}{4}''$, and is therefore slightly smaller than the plate published by Mr. Basāk, which measures $9\frac{1}{2}'' \times 8''$. The Royal Seal of the Chandras is attached to the middle of the top of the plate. It displays the *Wheel of the Law* with two couchant deer on the two sides, symbolical of the first "Turning of the Wheel of the Law" at the Deer Park,—the present Sarnāth near Benares. It is noteworthy that the Pālas of Bengal who preceded the Chandras, and who were Buddhists as well, had similar devices on their seals. The name of Śrī Śrī-Chandra-Dēva[h] is written in relief below the Wheel in the present seal.

The plate is incomplete and appears to be no grant at all, but only a plate kept ready, with the stereotyped portion of the grant inscribed in the office of issue, to be filled in with the necessary remaining portions as occasion arose. The plate is full of engraver's mistakes of a serious nature. It may be noted that Kēdārpur, where this plate was found, contains the ruins of a royal settlement surrounded by a broad ditch as well as a big silted up tank, commonly associated with the memory of Kedār Rāy, one of the famous twelve chieftains who ruled Bengal before the country was completely dominated by the Mughals. Kedār Rāy had his capital at Śripur, which, from the description of Ralph Fitch, appears to have been a flourishing town in 1585; and the reasonableness of having a second capital, only a few miles off, is not very apparent. Of course a thousand and one contingencies might have taken the present plate to Kēdārpur, where it has now been found, but the find of this unfinished plate also makes it possible that the ruins at Kēdārpur may be those of the Chandras who preceded Kedār Rāy by no less than five hundred years.

The plate is inscribed on one side only and there is a vacant space of about two inches at the bottom. The inscription contains 18 lines of writing. The letters are 24 to 30 inch in height and are in most places well inscribed. Mistakes of engraver or scribe are, however,

numerous and they have rendered the preparation of a correct text an undertaking of exceptional difficulty.¹

The inscription refers to the reign of Śrī-Chandra-Dēva of the Chandra family of Kings who held sovereignty in East Bengal for some decades before the rise of the Varmans and the Sēnas in that part of the country, towards the end of the Pāla rule in North Bengal. It is written in what may be called the Bengali Script of the 10th-11th century A.D. The language of the inscription is correct Sanskrit verse, except in the portions spoiled by engraver's mistakes. The last three lines are in prose.

There is nothing very special as regards orthography. The use of *va* for *ba* is almost the rule in the later East Indian epigraphs, there being no discrimination between them, as in the modern Bengali language. The *avagraha* is once used and once omitted. The spelling of the word *nistrinśa* with *ñ* is remarkable. Superimposed *r* has doubled almost all consonants.

From a comparison of the abstract of the Idilpur plate of Śrī-Chandra published in the *Dacca Review*, referred to above, with the contents of the present plate, it is evident that the two plates are copies of the same draft. The Idilpur plate seems to have an extra *Śloka* towards the end, borrowed from Śrī-Chandra's Rāmpāl plate, which is otherwise the copy of a draft different from that of the Idilpur and the Kēdārpur plates. It should be noted, however, that the opening invocatory *Śloka* is identical in all the three plates.

Śrī-Chandra seems to have been the only king of the Chandra family who was powerful enough to issue copper-plate grants, as the three plates hitherto discovered are all in his name. In order, therefore, to bring together all the epigraphical material available for his history, I quote below the necessary portions from Bābu Gaṅgāmōhan Laskar's abstract of the Idilpur plate, as published in the *Dacca Review*. The plate is reported to exist still; but it is in the custody of people who are unwilling to show it to anybody again.

² "The inscription gives the names of three kings :—(1) Suvarṇa-Chandra. (2) His son Trailōkya-Chandra. (3) Trailōkya-Chandra's son (Śrī)-Chandra-Dēva. The last of these kings issues a command from his victorious camp at Vikrampur making a gift of certain lands at the village called Leliyā in the Kumāratalakā sub-division (*maṇḍala*) of the Satāṭa-Padmā-vāṭi district (*viśaya*). The name Satāṭa-Padmāvāṭi literally means 'with-bank-Padmā-house' and was most probably the name of a district on the banks of the Padmā river. The names of some of the donees are still legible and the measures of the area of the granted lands are called *drōṇas* and *pāṭakas*, as in the Āsrafpur plates. Paramount titles such as *Paramēśvara*, *Parama-bhaṭṭāraka* and *Mahārājādhirāja* are attached to the names of (Śrī)-Chandra-Dēva. The title *Parama-Saṅgata* (the devout worshipper of Sugata, i.e. Buddha) is prefixed to the name of the donor. The characters used are probably of the 12th century type of the Bengali alphabet. The seal attached to the top of the plate resembles the seals found on the plates of the Pāla kings of Bengal. The inscription under notice is very important, as it, like the Āsrafpur plates of Dēvakhaḍga, shows the existence of Buddhist kingdoms in East Bengal in the period not much anterior to the conquest of Bengal by the Mussalmans.

" The plate is inscribed on one side fully and on another side partly. The writing on the second side has become almost defaced. This defaced portion contains the names of the donees and the particulars of the lands granted. There are altogether 36 lines of writing. An analysis is given below :—

Lines 1-4. Contain a verse in honour of Buddha, probably.

¹ I should gratefully acknowledge here the help that I have received in this respect from Prof. Abhayā Charaṇ Chakravarti, M.A., of the Jagannāth College, Dacca, without whose help I could hardly have made any headway, especially with the passages that are marred by the engraver's mistakes. I also owe some improvements in the reading of the text to the suggestions of my friend Prof. Basāk, in whose company I had the opportunity of revising my first transcription.

² [In this extract, the disritical marks, according to the latest emendation, have been adopted.—H. K. S.]

Lines 4-5. State that there was a king named Suvarṇṇa-Chandra who was neither purified in fire nor measured on the scales (like gold) but was by nature endowed with greatness (heaviness) and whose deeds were good.

Lines 5-6. State in a verse why the king was called Suvarṇṇa-Chandra.

Lines 6-9. The above king got a son named Trailōkya-Chandra, whose look was sacred, who was afraid of the next world, by whom the living world was consoled, whose meritorious deeds were well known throughout the three worlds.

Lines 9-10. Some further epithets of the same king who satisfied his desire of conquering the whole world and who extinguished the fire of his enemies.

Lines 11-13. More eulogistic epithets (of Trailōkya-Chandra-Dēva).

Lines 14-15. The above king had a son named (Śrī)-Chandra who was like Indra and whose prowess was like Indra and who was born at the auspicious moment and the signs at whose birth were indicative of royal fortune.

Lines 15-18. Some eulogistic epithets of (Śrī)-Chandra-Dēva.

Lines-18-19. From the victorious camp pitched at Vikramapura,

Line 20, the devout worshipper of Sugata (Buddha), the meditator of the feet of (i.e. the son of) Mahārājādhirāja Trailōkya-Chandra-Dēva, the Paramēśvara, the Paramabhaṭṭāraka,

Line 21, the Mahārājādhirāja, the Śrīmān, Śrī-Chandra-Dēva, being in good health and having done honour to all the following royal officers and villagers assembled at the village of Leliyā,

Line 22, in the Kumāratālākā-maṇḍala of Saṭaṭa-Padmāṅvā(ṭi) district,

Line 28, thus commands the above officers

Lines 29-30. Contain the names of the donees."

The following is an abstract of the present Kēdārpur plate :—

The inscription opens with a salutation to the Buddha, the Dharmma, and the Saṅgha,—the three jewels of the Buddhist faith. It then goes on to say that there was one Pūrṇṇa-Chandra by name who was the possessor of large forces. He was neither of royal birth nor of pure caste, but he obtained a son Suvarṇṇa-Chandra by name, resplendent as gold (v. 3). Suvarṇṇa-Chandra was a famous man of religious character, and his son was Trailōkya-Chandra (v. 4). Trailōkya's conquests extended far and wide and he was a terror to his foes (v. 5). Trailōkya's son was Śrī-Chandra who was extremely virtuous (v. 6). He was a great conqueror whose fame at arms had reached the heavens (v. 7). With this last king Śrī-Chandra-Dēva who was to have issued this plate from his victorious capital at Śrī-Vikramapura the inscription stops.

I edit the inscription from the original plate, now in the Dacca Museum.

Seal.

श्री श्रीचन्द्रदेव[ः]

TEXT.

- 1 चिह्निरसु¹ स्वस्ति । वन्द्यो जिनः स भगवान् कश्चैकपातं
- 2 वन्द्यो²प्यसौ विजयते जगदेकदीपः [1*] यस्तेवया

¹ Expressed by a symbol. [This symbol is generally taken for om, but the writer has put forward arguments in his article "Some Image Inscriptions from East Bengal" published below in favour of this symbol being read

'Siddhir=astu.'—Ed.]

² Read वन्द्यो.

¹ Read श्री.

- 3 सकल एव महानुभावः संसारपारमुपगच्छति भिक्षुसङ्घः¹ ॥[१*] पूर्व-
 4 चन्द्र इति श्रीमानासौकासीरजं रजः । यस्मिन्मय²योष³तुह[त]मातपत्रमपत्र
 5 पाः⁴ ॥[२*] नास्ती विद्युदो न तुलाधिदः किन्तु प्रकृत्यैव युतो
 नरिदणा । तथापि क-
 6 व्यापसुवर्णकस्यः सुवर्णचन्द्रमुज्जती ततोभूत्⁵ ॥[३*] पुण्यावलोकः परलो-
 7 कभीरोलोकः समाम्नासितजोवलोकः [१*] त्रैलोक्यसंकीर्तितपुण्यकीर्तः त्रै-
 8 लोकाचन्द्रोऽस्य व(व)भूव पुत्रः⁶ ॥[४*] चतुःपयोरागिसमाप्तपृथ्वीजयाभिलाषो वि-
 9 यधिवसुधः [१*] युद्धेषु निजिंयकताजलेन यो वैरिबन्धिं स⁷मयाच
 कार⁸ ॥[५*]
 10 श्रीमान् श्रीचन्द्रदेवः समजनि तनयस्तस्य सङ्घर्म्मव(व)न्धोः क्रूरारम्भे स⁹थासुः
 11 परगुणमुच्चरो दोषवादकमूकः [१*] प्रेक्ष्यः पीनो गुणानां निधिरिति
 12 विषयासक्तिपक्षादिपक्षे यस्मिन्ना(का)धत्त वेधा¹⁰ त्रियमतिरभसादर्थतो ना-
 13 मतच¹¹ ॥[६*] अष्टः पार्थिवपांसुदोहरसङ्घाचनदिग्गजे¹²नेत्राणामनिमे-
 14 षतः परिहृतो दूरेण हृन्दारकैः [१*] केशिहृत्सरसामपूर्वपलितभ्रातं
 15 समारोपयन् सन्तानो रजसां रणेसु¹³षु जयिनो यस्य सुमार्गं
 गतः¹⁴ ॥ [७*]
 16 स खलु श्रीविक्रमपुरसमावासितश्रीमज्जयस्कन्धावारात् परमसीगतो
 17 महाराजाधिराजः श्रीत्रैलोक्यचन्द्रदेवपादानुध्यातः परमेश्वरः प-
 18 रमभट्टारको महाराजाधिराजः श्रीमान् श्रीचन्द्रदेवः कुग्रही ।

TRANSLATION.

(Line 1.) May success attend ! May welfare accrue !

(Verse 1.) Adorable is the Lord Jina, the only receptacle of mercy. Victorious also is the Law, the only light of the world. By worshipping them, all the high-minded Congregation of Bhikshus cross to the other side of the world.

¹ Metre : Vasantatilakā.

² Read व.

³ Read वि. [This corrupt *pāda* has not been properly interpreted. The letter व after य (P) is not seen on the impression. A plausible emendation which I would offer, with much hesitation though, is वृष्णा[द्वि]व[ः*]वि [वृ*]पु[ः] and translate the passage thus : 'afraid of which (i.e. dust) the enemy (kings) sought refuge under his parasol giving up (all) shame.'—H. K. S.]

⁴ Read पं. Metre : Anuṣṭubh.

⁵ Metre : Upajāti.

⁶ Metre : Indravajrā.

⁷ Read न.

⁸ Metre : Upajāti.

⁹ Read द.

¹⁰ Read वेधाः.

¹¹ Metre : Śragdhara.

¹² This line is proposed to be thus restored :—अष्टः पार्थिवपांसुदोहरसङ्घाचनेदिग्गजेः

¹³ Delete सु.

¹⁴ Metre : Śārdūlavikrīḍita.



(Verse 2.) There was one **Pūrṇa-Chandra** by name, favoured of the Goddess of fortune, the bold canopy of dust raised by whose vanguard (in battle) was welcomed by the wives of the Sun-God.¹

(Verse 3.) By nature endowed with majesty, he was neither purified in fire (like gold or kings²) nor weighed in balance (like gold or like kings); yet from him came forth the meritorious **Suvarṇa-Chandra** resplendent as gold.

(Verse 4.) Of him, who was afraid of sinning against the other world and whose sacred fame was sung throughout the three worlds, was born the son **Trailōkya-Chandra**, the (mere) sight of whom was meritorious,—who was beautiful to look at, and who was a solace to mankind.

(Verse 5.) Not fond of (the possession of) *vishayas* (districts) [or, devoid of covetousness], but bent on conquering the (whole) earth limited by the four oceans, he put out in battles the fire, viz. his foes, by water, viz. his creeper-like sword.

(Verse 6.) To him, who was a friend of the right path, was born a son, the prosperous **Śrī-Chandra-Dēva** who was kind (even) towards mischievous endeavours, full of praise for others' good qualities, (but) absolutely dumb to the exposition of (others') faults; a well-built figure, pleasant to the sight and a repository of all virtues. Him, who was averse to all worldly attractions (*vishay-āsaṅgi*), the Disposer forcibly endowed with **Śrī** (fortune) both in name and in reality.

(Verse 7.) The multitude of dust particles raised by the victorious (king) in battles, met by the Elephants, the lord of the (ten) quarters completely engrossed by the proud desire of coming in contact with the (aforesaid) kingly dust,³ and avoided from a distance by the gods whose eyes could not close (against it), proceeded towards heaven, causing on the hair of the heavenly nymphs the unprecedented illusion of whiteness of old age.

(Lines 16 to 18.) From his prosperous and victorious capital established at **Śrī-Vikramapura**, he, the devout worshipper of Sugata, the **Paramēśvara** (great lord) **Paramabhaṭṭāraka**, (the great protector) **Mahārājādhirāja** (the paramount sovereign), the illustrious **Śrī-Chandra-Dēva**, who meditates on the feet of the **Mahārājādhirāja Śrī-Trailōkya-Chandra-Dēva**, in good health—.

¹ [See above, page 191, note 3.—Ed.]

² [The so-called Agnikula Kshatriyas.—Ed.]

³ [पृथ्वी is the dust of the Earth. It is a well-known fact that elephants are fond of playing with dust.—Ed.]

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No. 13.—A NOTE ON THE DATES OF THE GUPTA COPPER PLATES
FROM DAMODARPUR.

By K. N. DIXHIT, M.A.

The discovery of the Damodarpur plates has thrown new light on the fortunes of the Gupta dynasty in Eastern India. The plates have been edited by Mr. Radha Govinda Basak above, Vol. XV., pages 113-145. I wish here to point out certain inaccuracies in the readings of the dates as read by Mr. Basak, which I first noticed when I read his paper and subsequently verified by reference to the original plates, now preserved in the Varendra Research Society's Museum at Rajshahi.

The date of the second plate which has been read by Mr. Basak as 129 is to be read as 128. The unit figure which is a vertical line with a slight bend, and a seriph or small horizontal line at the top end, must be taken as the symbol for 8, while the symbol for 9 has a loop at the top.

The fifth plate has lost the name of the reigning Gupta sovereign, but the date has been fairly well preserved. It has been read as 214; but I see no trace of a 'ten' in the second figure, but a clear 'tha' denoting 20, the date thus being 224. That some Gupta sovereign held sway over North Bengal as late as 224 G.E. or 543 A.D., that is eleven years after the date of the Mandasor pillar inscription of Yaśōdharman (532 A.D.) is an important result. It is no longer possible to assume with Mr. Basak that the Gupta Emperor who made the grant was Bhānugupta,¹ as the difference between the date of the plate and the only known date for Bhānugupta (*vis.*, 191 Gupta Era) is now 33 years. The fourth and fifth plates seem to be separated by a wider margin than that existing between any other two plates of the Damodarpur find. The intervening period of sixty years, roughly 164—224 Gupta Era (=483—543 A.D.) witnessed the gradual diminution of the Gupta dominion and the slow shifting of the centre of their power to the east. It also witnessed the rise and fall in succession of the Hāṇa chieftains Tōramāna and Mihirakula, and the transitory success of the Mālava chief Vishṇuvar-dhana Yaśōdharman. Other dynasties like the 'Vardhana' kings of Thaneshvar and the Maukharī rulers of Kōsala were coming into power on the western outskirts of the Gupta Empire, the latter dynasty in particular having carried on an incessant warfare in Oudh and adjacent regions with the Guptas. It was probably the ascendancy of the Maukharī rulers in Ayōdhya that drove the 'noble born' Amṛitadēva (the donor of the fifth Damodarpur plate) from his native place Ayōdhya to the distant Paundravardhana province, which may seem to have been one of the last retreats of the Imperial Guptas. The Jaunpur inscription of the time of the Maukharī Iśvaravarman, though not dated, must belong to the same period as the fifth Damodarpur plate, as we know from the Haraha inscription that Iśvaravarman's son Iśānavarman had fully established himself in Oudh by 555 A.D.

No. 14.—SOMALAPURAM GRANT OF VIRUPAKSHA: SAKA 1389.

By K. V. SUBRAHMANYA AIYAR, B.A., M.R.A.S., OOTACAMUND.

This set of three copper-plates, marked No. 2 in Appendix A of Rao Bahadur H. Krishna Sastri's Annual Report on Epigraphy for 1913-14,² is edited below for the first time with the help of one set of impressions kindly placed at my disposal by him.

The plates are reported to belong to a Kuruba ryot of Sōmalāpura in the Bellary taluka of the Bellary District. They were unearthed years ago while digging foundations for a house; but were secured in 1913, for the examination of the Assistant Archaeological Superintendent,

¹ [The reading at the end of l. 1 in Plate V of the Damodarpur Plates is probably Kumāra.—Ed.]

² See also p. 95, paragraph 25, of the same report.

Southern Circle, through the kind offices of the Tahsildar of the taluka, by the then Kanarese Epigraphical Student, Mr. K. Rama Sastri. Regarding the description of the plates Mr. Krishna Sastri has made the following note on the cover of the ink-impressions he sent to me:—

“Three plates with rounded tops of which the first and last are written on the inner sides only. They are held together by a ring which passes through a round hole bored at the top of each plate. On the ring, which is nearly $2\frac{1}{2}$ ” in diameter and $\frac{1}{4}$ ” in thickness, slides a circular seal shaped like a signet ring. The seal measures $1\frac{1}{2}$ ” in diameter and bears in relief on its surface at the top the sun and the crescent and a standing boar facing the proper left. Below it is what looks like a floral device. The plates measure $9\frac{1}{2}$ ” by $6\frac{1}{2}$ ”. The circular top measures $1\frac{1}{2}$ ” from the base to the middle of the arc.”

The plates are written in the Nandi-Nāgarī characters throughout excepting the syllables “*Sri-Virūpāksha*” at the end which are in Kannaḍa. The inscription is in a good state of preservation: the only places where the letters appear slightly damaged are at the commencement of lines 20 and 68.

The language of the inscription is Sanskrit verse from beginning to end. The description of the boundaries in *dśabhāṣā*, promised by verse 46 (ll. 71, 72), is left blank for reasons which cannot be guessed at this distance of time.

As is usual in the copper-plate grants of Vijayanagara kings, this record contains evident mistakes of spelling such as the frequent substitution of *sa* for *śa* (ll. 1, 4) and *vice versa* (ll. 1, 3); *tha* for *ta* (ll. 5, 16); *dha* for *tha* (l. 43); omission of *visarga* (ll. 5, 8, 13) and its retention in places where it has been changed into *ṣ* (l. 42); unnecessary insertion of *anusvāra* (ll. 37 and 38), etc. Conjunct consonants are sometimes written side by side as in *दद्यात्* (l. 2), *पानयन्* (l. 37) and *खड्गायतः* (l. 33). In *चतुष्टि* (l. 45) and *भूष* (l. 12) the rules of *sandhi* have not been properly observed. *न* has been unnecessarily doubled in *निम्बि* and *visarga* has been changed into double *र* in *गुरुरे* (l. 27). Other instances of mistakes are *वीर* for *वैर* (l. 45), *सर्व* for *सर्वे* (l. 13) and *शिव* for *शिवे* (l. 17). As all the mistakes occurring in the record have been corrected in the text or in the foot notes, they have not been given here in more detail.

The first three verses are invocations addressed to Śiva, Gaṇapati and the boar incarnation of Viṣṇu. The fourth introduces the Moon, and the fifth refers to Yadu and Vāsudēva. The historical portion commences with *Singama* (v. 6). His son was *Bukka*. When he became king, the prosperity of the Karnaṭa kingdom was permanently established (vv. 7 and 8). *Harihara* (II) was born to him; he filled the quarters with the wealth of his charity (v. 9). He had a son named *Pratāpa-Dēvarāya* (I) by whom the *Turushkas* and hostile kings were overcome (vv. 12 and 13). His queen was *Dēvambikā* and their son was *Vijayabhūpati*, renowned for his wisdom (v. 14). *Vijayabhūpati*'s son by *Nārāyaṇīdēvī* was *Pratāpa*, also called *Praudhapratāpa* (v. 15), who obtained from his elder brother the kingdom of *Ghanadri* (v. 16). His son by queen *Siddaladēvī* was *Virūpāksha*. The titles *Rājādhirāja* (v. 18), *Rājaparamēśvara* (l. 42), *Mūruṛāyaraṇḍa*, *Pararāya-bhayaśākara* and *Hindurāya-Suratāpa* and *Ohhurikā-bhālanētra* (v. 20) are given him. It is said that he obtained the kingdom by his own prowess and ascended the ancestral throne on the bank of the *Tungabhadra*, in the presence of god *Virūpāksha* (vv. 21 and 22).

In speaking of the ancestors of *Virūpāksha*, our record refers to the valour of *Bukka* I., the munificence of *Harihara* II, the prowess of *Dēvarāya* I and the wisdom of *Vijayabhūpati*. The same is pithily expressed in a single couplet elsewhere¹ thus:—

शक्तौ बुद्धमहोपाखी दाने हरिहरेश्वरः ।
शौर्व्ये शोदेवरानेशो ज्ञाने विजयभूपतिः ॥

¹ *South-Ind. Inscr.*, Vol. I, p. 163, verse 15.

The statement that when Bukka I, one of the two earliest sovereigns of the Vijayanagara dynasty, ascended the throne, the prosperity of the Karnāṭa kingdom was well established, is of particular interest to the student of history, as it seems to hint the probable fact that the Vijayanagara dominion was founded on the ruins of the Hoysala (i.e. the Karnāṭa) dominion, which was wrecked by the Muhammadan invasions of South India; and shows also that the inveterate feud between the Vijayanagara kings and the Muhammadan monarchs should have risen even from the very inception of the new Hindu kingdom. There is not much doubt that the country over which Bukka ruled was a portion of the Karnāṭa empire and that the Vijayanagara kings were the political successors of the Hoysalas.

Of greater importance are the statements of our plates that Pratāpa, also called Praṇḍhapratāpa, was the younger son of Vijayabhūpati, that he obtained from his elder brother,—showing clearly that he held a subordinate position under him,¹—the government of Ghanādri, and that Virūpāksha II was his son.

The Satyamaṅgalam plates of Dēvarāya (II)² state that Vijayabhūpati had two sons of whom the elder was called Dēvarāya and the younger Pratāpa-Dēvarāya. From this it is clear that both the sons had in common the name Dēvarāya. The existence of these two sons of Vijayabhūpati, though not with their names specified, is recognised in the three copper-plate grants of Virūpāksha known to us so far, viz. the Sajjalūr plates,³ the Śrīśailam plates⁴ and the present Sōmalāpuram grant. These, being directly concerned in tracing the main line of Virūpāksha, naturally enough, omit to mention the name of the elder. While the Śrīśailam plates call the younger Pratāpa-Rāya, the other two give the additional information that he was renowned by his title *Praṇḍhapratāpa*. Thus, from all these sources it can be gathered that while the first son of Vijayabhūpati was known by the mere name Dēvarāya—with or without the common addition of Virapratāpa which is generally assumed by Vijayanagara kings—the younger was always called Praṇḍhapratāpa or Pratāpa-Dēvarāya which is sometimes supplemented in stone records by the epithet *gajavēṇṇai-kaṇḍarūṇiya*. Among the stone records of Vijayanagara kings, the following are clearly attributable to the second son of Vijayabhūpati:—

| | |
|--|--|
| No. 92 of the Madras Epigraphical collection for 1918. | Dated in Śaka 1351 in the reign of Pratāpa-Dēvarāya, son of Vira-Vijayarāya. |
| No. 91 of 1918 | Dated in Śaka 1352 in the reign of Praṇḍha-Dēvarāya-Mahārāya, son of Vira-Vijayarāya-Mahārāya. |
| No. 68 of 1918 | Dated in Śaka 1367 in the reign of Pratāpa-Dēvarāya-Mahārāya, son of Vira-Vijayarāya-Mahārāya. |

Thus it is beyond doubt that the second son of Vijayarāya or Vijayabhūpati was not only called Pratāparāya and Praṇḍhapratāpa, but had the additional name Dēvarāya suffixed to these names. Further, the Madras Museum plates of Dēvarāya II⁵ refer to a younger brother of his named Śrīgiri who was governing Maratakanagara in A.D. 1424-5 and the Satyamaṅgalam plates of Dēvarāya II, dated in the same year, imply that his younger brother Pratāpa-Dēvarāya was

¹ If Mr. Rice has correctly read *niṣāgrajāprāptam-anādi-rājyam* (p. 186 of *Ep. Carn.*, Vol. III), it is evidently a mistake of the engraver for *niṣāgrajāt-prāpta-Ghanādevi-rājyaḥ* given in our plates. His remarks (*ibid.*, introduction, p. 23) that Pratāpa or Praṇḍha-pratāpa obtained the immemorial kingdom from his elder sister requires modification.

² *Ep. Ind.*, Vol. III, p. 87 f.

³ *Ep. Ind.*, Vol. XV, pp. 8 ff.

⁴ This is a shortened form of Praṇḍhapratāpa.

⁵ *Ep. Carn.*, Vol. III, pp. 135 ff., Ml. 121.

⁶ *Ep. Ind.*, Vol. VIII, pp. 306 ff.

ruling over the same district. There is thus no doubt that Pratāpa-Dēvarāya is identical with Śrīgiri and this fact has been pointed out by Mr. Venkayya in his *Annual Report on Epigraphy* for 1906 (p. 82). It may be added that the name Praudhapratāpa-Dēvarāya was already assumed by Dēvarāya I.¹ A stone inscription of this second son under the name Śrīgirinātha-Uḍayār, dated in Śaka 1348, has also been discovered.²

In the face of the inscriptional evidence furnished in a number of genuine copper-plate grants and stone records referred to above, we do not attach any value to conclusions differing from recorded facts as have been arrived at by the late Mr. T. A. Gopinatha Rao in editing the Śrīśailam plates, where he has vainly attempted to show that there was but one son of Vijayabhūpati, by name Dēvarāya. He has advanced no valid grounds for disproving the identity of Śrīgiri with Praudhapratāpa-Dēvarāya, the second son of Vijayabhūpati.

The first two sons of Vijayabhūpati being known by the name Dēvarāya, it is but natural to mistake the sons of one of the Dēvarāyas for those of the other. But the fact mentioned in our inscription, viz. that Virūpāksha was the son of the second son of Vijayabhūpati, whom we have pointed out above to have borne the full name *gajavēṭṭai-kaṇḍaruṭiya* Praudhapratāpa Pratāpa Dēvarāya, is of importance as it conclusively controverts the commonly accepted view, viz. that Mallikārjuna and Virūpāksha were the sons of Dēvarāya II, the first son of Vijayabhūpati. In this connection, we may point out that two unpublished stone inscriptions furnish definite information. They come from Kundāni³ in the Salem District and Conjeeveram⁴ in the Chingleput District and state that Mallikārjuna and Virūpāksha were the sons of *Gajavēṭṭai-kaṇḍaruṭiya Praudha-pratāpa-Dēvarāya-Mahārāya*. Here the mention of the epithet Praudhapratāpa makes it certain that the king referred to is the younger son of Vijayabhūpati. Another stone inscription of Virūpāksha,⁵ dated in the cyclic year Śārvari, calls him the son of *Gajavēṭṭai-Pratāpa-Dēvarāya*. It may be noted that while the mother of Virūpāksha was Śiddhaladēvi, the mother of Mallikārjuna was Ponnaladēvi, who must have been two different queens of *Praudhapratāpa-Dēvarāya*, the second son of Vijayabhūpati.

Our record is dated in Śaka 1389, expressed by the word *nav-aṣṭa-guṇa-bha*, Sarvajit, Kārttika month, bright fortnight, Utthāna-dvādasi. According to Dewan Bahadur L. D. Swamikkannu Pillai's 'Ephemeris,' this date corresponds to Monday, 9th November, A.D. 1467. It may be noted that the stone inscriptions of this king range in date from Śaka 1387,⁶ Vyaya to Śaka 1407⁷ from which it would appear that he ruled for at least ten years. But the latter date is very doubtful as the record is damaged.

The generals and officers of this king made known to us from inscriptions are Viṭṭharasa, Oḍeya,⁸ Sāluva-Tirumalarāya,⁹ Sāluva-Narasimha,¹⁰ and Singappa-(or Śingapa-) Daṇḍanāyaka.¹¹ Of these, Viṭṭharasa-Oḍeya was in charge of Bārakūru and Mangalore which he was governing from Śaka 1387 to 1398. Tirumalarāya was in charge of Trichinopoly and Sāluva-Narasimha developed into a usurper in later years. Two stone records of Virūpāksha in particular are

¹ No. 138 of the Madras Epigraphical Collection for 1889.

² No. 63 of the same collection for 1908.

³ No. 203 ditto 1911.

⁴ No. 39 ditto 1890.

⁵ No. 661 ditto 1904.

⁶ Nos. 180 and 153 of 1901.

⁷ No. 398 of 1909.

⁸ Nos. 30 and 153 of the Madras Epigraphical Collection for 1901.

⁹ *Kōyiloḷugu* makes mention of this chief—see *Ind. Ant.*, Vol. XL, p. 141.

¹⁰ See note 6, below.

¹¹ Nos. 29 and 153 of the Madras Epigraphical Collection for 1901.

worth mentioning in this connection, of which the one, dated in Śaka 1390, registers a gift by an agent of Śaṅkha-Narasimha, and the other, dated in Śaka 1394, records a gift for the merit of the same chief.¹

The subjoined inscription registers (i) a gift of land situated to the west of the Hagari river within the boundary of the village of Yammegānūru in Mūḍa-nāḍu, a sub-division of Hastināvati-valita, to a Brāhmaṇa resident of Niṭṭura, the son of Śaraṅgārya, learned in the Vēdas, Sāṅkhya and Mīmāṃsā and reputed as the author of a work called *Bhāṣya-Bhāṣa*; (ii) gift of lands under the tanks called Kṛishṇa-taṭṭaka, Kariyakere and in the village of Chiṭṭukanāhālu to another Brahman named Virūpākshārya, a physician and the son of Rasōśvara; and (iii) gift of the village of Sōmalāpuram, with its name changed into Virūpākshapuram, to a certain Virapārya, who, in turn, appears to have distributed it among Brahmins, dividing it into 60 *vrittis*. The distribution of the full 60 *vrittis* among Brahmins is not given. But it is said that four Brahmins and three others connected with the issue of the copper-plate grant received $8\frac{1}{2}$ shares. The account for the rest is omitted, but it is evident from the blank space preceding verse 46 that possibly one or more plates containing the names of the rest of the *vritti* holders, which were intended to be inserted, have not been so done. The description of the boundary marks too, which must have followed this verse, is omitted, as already remarked.

Of the geographical names found in this inscription, Niṭṭura, Chiṭṭukanāhālu, and Sōmalāpura are villages situated in the Bellary taluka; Hastināvati is another name for Ānegondi near Hampi; Yammegānūru is in the Bellary taluka at the place where it borders on Hospet; and the river Hagari bears the same name even now. It is noteworthy that the old name Sōmalāpura is retained at present while its later name Virūpākshapuram given in Śaka 1389 has not survived. *Khāri*, according to the dictionaries, is equal to 3 bushels and perhaps indicates the extent of land by its sowing capacity. The two tanks, Kṛishṇa-taṭṭaka and Kariyakere, must be looked for also in the Bellary taluka.

The composer of the grant was Durga-Bhaṭṭa, son of Mādhavārādhya, who figures also in Ml. 121; and the engraver was the goldsmith Virapārya, son of Muddanārya.² This engraver is perhaps identical with Virapārya, the father of Mallapa, who incised the inscription Ml. 121.

[The following metres are employed: vv. 1-3, 5, 7, 11, 14, 15, 17, 20-53, *Anuṣṭubh*; vv. 4, 10, *Sāradalavikṛīḍita*; vv. 8, 12, 13, 16, 19, *Upajāti*; vv. 6 and 18, *Upēndravajrā*; v. 9, *Malini*; and v. 54, *Sālini*.]

TEXT.

First Plate.

- 1 श्रीगङ्गाधिपतये नमः । नमस्तु(स्तु)गति(गि)रक्षुविचंद्रचामरचारवे । चे-
- 2 लोचनगरारंभमूलस्तंभाय शंभवे ॥ [१*] रक्षायै जगतां भूयादद्याकुर्वि-
- 3 रदाननः [१*] पायक्रोडाविधौ यस्य पश्वन्ति पयोधयः । [२*]
नमःस्तु(स्तु)शमे(शै) वरा-
- 4 दाय यद्वानाकमूर्धनि । सप्तद्वीपवतो पृथ्वी लोलाकनश्रीरदृष्ट(श्रु)तः⁴ । [३*]

¹ No. 79 of the Madras Epigraphical Collection for the year 1919 and No. 188 of the same collection for the year 1902.

² The Śrīraṅga plates were also incised by the same person (see above, Vol. XV, p. 19) where the name of the person occurs as Virapāchārya, son of Muddanāchārya.

³ Cancel the *visarga*.

⁴ Omit the *visarga*, लोलाकनश्रीरदृष्ट is the reading in Ml. 121.

- 5 'सखि(सि) श्रीकमलाजयाशुजतया दीप्यमानमंडले नखवाधियति[:*] प्र-
 6 भाभिरनिसं(यं) दि[सं]डलोकासक्त[त्] [१*] श्रीरात्रिप्रभवः कलानिधिरि-
 7 ति स्वातसु(सु)धासु(यु)[:*] च(स्य)यं ।^१ मोक्षो यत्न(स्य) विभूतस्त्वन्मम-
 च्छभोभवा-
 8 नीपति[:*] ॥ [३*] वक्षि(ये) तस्यैव संजातो यदुर्नाम नक्षीपतिः [१*]
 यक्षंस(य)जेन भू-
 9 [रि]षा वासुदेवेन पालिता । [५*] यत्किंस्वंगरजिह्व(त्य)भंगुरमरं प्रत्यर्धिपृथ्वी-
 10 भूमां 'साधो(र्धे)र्भगसुपागतैरपि नता दिक्षुडलो संभ्रमा[त्*] । तत्कोर्त्तिर्भि-
 11 वरोधुं गच्छति पुरी दिङ्मायवृंदैश्चही सङ्गतः यथिमौकिमंडन-
 12 मणि[:*] शो(सो)भूत(सु)पः सनमः ॥ [६*] ततोभूतभूपातः सर्वभूय-
 कुलाग्रणी[: १*]
 13 यत्प्रतापानले सर्व(र्धे) यतर्गत्यरिभूतः ॥ [७*] कर्नाटखली[:*] सविज्ञास[मा]-
 14 स यत्किंस्वहीपे महनोयकीतो(र्त्तो) [१*] भूमिस्त्वयैवाप' वसुंधरात्वं क्षिरेति नाम
 15 प्रथमं गुणोधे^२ ॥ [८*] उदयमुद[य*]रैलादुच्यदुहामतेजा[:*] यत्न(स्य)धर
 इव बू(सु)क्ष्मा-
 16 'भूतःस्वंगमौलि । हरिहरनरपालः प्रापदास[ि](शा)[:*] समस्या(स्ताः) करधृत-
 वसुधूरे[:*]
 17 पूरयन् पूर्यधामा ॥ [९*] धिनाकारि कली(लिः) कृताधिकतरो वेने(नै)व
 [धं]द्रापत(य): क-
 18 सर्व(त्र)क्षपथोजनो(नि)^{१०} प्रस(स्य)मितायेजीयसर्गः परा(रं) [१*] धिनाभोनिधि-
 मेखला वसु-
 19 म[तो ध]र्मेण संरक्ष(स्य)ते तस्यामेकदिगीस(य)पालि[त]^{११}यशोर्विबस्य कीनो-^{१२}
 20 पम(मा) ॥ [१०*] [मे]कादेवीति विख्याता श्रीपार्वत्योस्तु मेकना[त्*]
 सासीजाया^{१३} मक्षोभर्त्तु[:*]

^१ Ml. 121 has सखि.^२ Delete the punctuation.^३ जिह्व is also the reading in the Kannada-text of Ml. 121 (see p. 203 of *Ep. Carn.*, Vol. III); but it is read as जिह्व in the romanised text given on p. 185. Read यत्किंस्वंगरजिह्व.^४ Read 'धरे'.^५ 'संवे' is the variant given in Ml. 121.^६ Read वरेपु.^७ 'सधा' is the reading in Ml. 121.^८ गु is a correction from पु; read गुणीधेः.^९ Read भूतसुधुमीति.^{१०} सु is a correction from व.^{११} Ml. reads पयोजनी.^{१२} The Kannada text of Ml. 121 has सेनीपमा (p. 203 of *Ep. Carn.*, III) and the romanised text has *senipama* (*ibid.*, p. 185).^{१३} Another variant of this is सासीजाया which is found in Ml. 121.

- 21 स[र्वार्थ] पुष्पकचया ॥ [११*] इंद्रः कर्णोप परिहर्षकामो भूमावधीका(य) प्र-
 22 तिपन्न[रूपः] [1] प्रतापपूर्व[*] किल देवरायः प्रतापतो भूमिमपालय-
 23 [सः 1] [१*] प्रतापवन्दो परिहर्षमनाधि युष्माकुलुष्का अपि यस्य
 रात्रः [1*] रि-

Second Plate; First Side.

- 24 पुचितीश[१*]स निरस्तधेयाः कातारवर्षमीककतात्मरथाः ॥ [११*] तस्य देमावि-
 25 काभर्तुः पुनः शत्रुप्रमर्दनः [१*] विद्यानिधिर्विशेषज्ञो वीरो विजयभूपतिः [॥ १४*]
 26 तस्य नारायणीदेव्या प्रादुससोद्यग्रोधनः । प्रौढप्रतापविभवः प्रता-
 27 पाख्यो महीपतिः ॥ [१५*] गुणेर(र)नेकौ वनोतकेक्षिन्^१ न्विराजमानक्षु-
 28 कतासकीर्त्तिः [*] निजाग्रजात् प्राप्तघनाद्विराज्यः सार्यकितार्थिपु-
 29 जपारिजातः ॥ [१६*] तस्य शिहलदेवीति भार्या सर्वगुणाश्रया ॥
 30 लक्ष्मीना(र्ना)र[१*]यणसे(खे)व स(श)[वी]व^२ नमुचिचिषः ॥ [१७*] तस्य
 सि(ग्रि)वः प्रादुरभू-
 31 हुणाख्यो नाका विरुपाक्ष इति प्रसिद्धः [१*] राजाधिराजः क्षितिपा-
 32 लमीडि[र्व]दाभ्यमूर्त्ति(र्त्ति): कश्चैकसिंधुः ॥ [१८*] मिजप्रतापा[द]धि[ग]-
 33 त्य राज्यं समस्तमाग्नी[*] परितैक्ष्यमानः [१*] खड्गा(का)घतः^३ सर्वरिपूम्नि-
 34 जित्य स मोदते वीरविलासभूमिः ॥ [१९*] पु(कु)टिकाभालनेवी(त्रे)ति वि-
 35 ख्यातः प्रतिपं(प)कधीः । मूरारायरगंडांकः पररायभं(भ)यंकरः [१*]
 36 हिंदुरायसुरबाण इत्यादि विरु[दो]धतः ॥ [२०*] तुंगमद्रागदीती-
 37 रे ।^{१०} विरुपाक्षस्य संनिधौ [१*] पित्र्य^{११} सिंहासनं प्राप्य पासवन्न(न)-
 वनोमिमां ॥ ५१* पुं(पु)-
 38 ख्यलोकाग्रगं(ग)ण्योसौ विरुपाक्षक्षितीख(ख)रः । धर्मस्थानगते[ः]
 39 सङ्गिः संयुतो^{१२} धरणीसुरैः^{१३} ॥ [२१*] शालिवाहननिर्णीतशकच-
 40 धर्ममार्गते । न[वाष्ट]पुष्पभूयुक्ते सर्वजित्सुरे शुभे ॥ २२* आसि कार्तिक-

¹ Perhaps the correct reading is सुखेया or सर्वार्था; Ml. 121 has अनर्था.

² Ml. 121 has वंशि; read प्रतापवर्द्धि.

³ Read कर्तार°.

⁴ Read ह्य्या°.

⁵ Cancel न.

⁶ See note 8; p. 4; above.

⁷ Ml. 121 has सिंहासदीवी.

⁸ सची नमुचिचिषः is the reading in Ml. 121.

⁹ The variant found in Ml. 121 is संयामतः.

¹⁰ Cancel the *danḍa*.

¹¹ दिव्य is the reading that occurs in Ml. 121.

¹² संयुक्ती is another variant found in Ml. 121.

¹³ The Kannaḍa text of Ml. 121 has धरणीसुरै; but the romanised text reads correctly सुरैः.

- 41 विख्याते सिते पञ्च[क्षे] विशेषतः । उत्थाना(न)द्वादसी(शी)पुष्पां(क्ष)काक्षे
चापि नृपी-
42 त्तमः [1] [२४*] राजाधिराजः^१स्तेजस्वी यो राजपरमेश्वरः [1] [वि]रूपाक्ष-
चितीशो-
43 ध(य) धर्मबुद्ध्या युतः सुधीः । [२५*] आचयेयाय ^२इगधीने निहुरस्त्रस्रवाति-
44 ने । सां(सा)रंगार्यसुतायाय सर्वशास्त्रविदे तथा । [२६*] भाष्यभूषाक[रा]-
45 याय सांख्यामोमांसवेदिने । ^३सौवशास्त्रप्रवाणोय चतुष(ष्व)ष्टिकका(क्षा)-
46 नि(वि)दे । [२७*] षडंगसहितं वेदं वेदार्थं वेत्ति भूसुरः [1*] तस्मै
द्विजाय भू-
47 [पालो] हस्तिनावतिवक्रितगं(गां) । [२८*] मूडनाडस्थितं(तां) चैव हगरे[ः*]
प[चि]-

Second Plate ; Second Side.

- 48 मे स्थितं(तां) । यमेगेनूह सोऽन्ये^४ ।^५ खारो भूमिं महीपति[ः ॥*] [२९*]
प्रादात्तया च स(म)हि-
49 तं क्षेत्रं सस्यफलप्रदं ॥ [२९*] भारद्वाजाय विदुषे ।^६ रसेश्वरसु-
50 ताय च । विरूपाक्षार्यभिव्रजे ^७रुद्रशास्त्रां(क्षा)ध्या[यि]-
51 ने तथा ॥ [३०*] खारिसप्तप्रमाणं च [त]टाके क्षणसंज्ञिते[1*]
करियकेरैर्ये-
52 ति विख्याते खारिचयमितां भुवं । [३१*] चिटुकनाडाकु नाम्नेव
खारिचयमितां
53 भू(भु)वं । मिक्त्वा खारिसंख्यां(ख्या)च चयोदश सुविमुता ॥ [३२*] च(त)नस्यं
ग्राममेकं तु सो-
54 मलापुरनामकं [1*] अस्माकं भो विरूपाक्षमहीनाय ददस्व नः^८ । [३३*] इ[ति]
55 विज्ञाप्य भूभर्तुर्विरूपा[क्ष]महीपते[ः 1*] वि(वो)रणाय[ः*] स्वयं सन्वा(वध्वा)
ग्रामं^९ चा[च]
56 महीस्व(श्व)रात् ॥ [३४*] शृ(श्रु)त्वा विज्ञापनं तस्य विरूपाक्षमहीपति[ः*] ।
[३५*] निधिनिक्षे-

^१ Delete the *risarga*.

^२ Read *क्ष*.

^३ Read *क्ष*.

^४ Either the word *चक्ष्माकं* or *नः* should be cancelled ; otherwise there would be redundancy.

^५ We should have expected *दीरवादेच संज्ञायी दानयानः*. For the pleonastic use of the words *महीपते*; and

महीचरात् see above, note 1.

^६ Read *महेश्वरप्रवीणाय*.

^७ Cancel the *danḍa*.

^८ The *ś* of *दे* seems to have been erased in the original.

- 57 यत्संयुक्तं जलपापाणमिच्छितं । अचिच्छागामिसंयुक्तं ¹ सिद्धसाध्यस-
 58 मन्वितं । [१६*] अष्टभोगैश्च संयुक्तं कुल्यारामममन्वितं [1*] समस्तवक्सिंयु-
 59 क्तं सर्वमान्यं फलप्रदं । [१७*] तुंगभद्रानदीतीरे विरूपाक्षस्य सं(स)न्निधौ[1*]
 60 सद्गिरं(र)च्छोदक(कं) दानधारापूर्वं यथाविधि [॥१८*] विरूपाक्षपुरं चेति-
 61 प्रतिनाम त्रिधाय च ॥ भोक्तुं दातुं द्विजेभ्यश्च प्रादादा[चंद्र]तारकं । [१९*]
 62 सोपि द्विजश्च संतुष्टः[*] संयुतः परया सुदा [1*] अकर्करं(रो)दायिषं रात्रे
 चिरं-
 63 जीवी भवत्विति ॥[४०*] गोचं प्राप्त्वा पितुर्नाम द्विजानां च यथास्मितं [1*]
 लिख्यं-
 64 ते वृत्तिसंख्याच षष्टिसंख्या यथाक्रमात् [॥ ४१*] श्रीवत्सो 'रुगधीतश्च [चेम]-
 65 चार्यसुतः सु(सु)धीः [1*] मन्निभदेति विख्या(ख्या)तो वृत्तिमेकामिहान्युते ॥
 [४२*] वासि-
 66 षो(षो) रुगधीतश्च^४ वत्सभदसुतः सुधीः[*] । [दु]र्गभदेति^५ विख्यातो
 वृत्तिमे[का]मिहान्यु-
 67 ते ॥[४३*] हारोतो^६ रुगधीतश्च हंपणार्य[सु]तः सुधीः[] [1*] [सारंगार्यश्च
 वि]ख्यात[*] सार्ध[मेक]-
 68 . .[स]: [॥४४*] आच्येयोश्च रुगध्येत भायणा[र्य]स्य [नंदन]: [1*] भायिभदो
 द्विजत्रेष्टो(ष्टो) वृत्ति-
 69 [हयमि]हान्युते ॥[४५*]

Third Plate.^७

- 70 भैस्त्रै[स](स्त्र)मन्वितश्चिन्ने^{१०}दि-
 71 च प्रास्था(स्था)दिषु क्रमात् [1*] सोमानीश्या(स्या)प्रहारस्य लिख्यंते
 देव(य)भाषया [॥४६*]
 72 वासिष्टो(ष्टो) वं(व)व्व(वृ)चो विद्वान्
 78 ऐतयार्यसुतः सुधीः [1*] वत्सभो रायसम्भा(स्वा)मि(मी) वृत्ति^{११}मेकामिहान्युते ॥
 [४७*]

^१ Cancel the *danḍa*.^२ च is a correction from सु.^{३-४} Read वत्सधीतश्च.^५ Read 'भद' इति.^६ Read वत्सधीतश्च.^७ Read वत्सभदेति.^८ At the top of this plate, a little below the right side of the ring-hole, is the letter *ri* which I am not able to explain.^९ The line begins about the middle of the plate.^{१०} Like वन्नी in line 23 वी is written with a preceding *an*. The grammatically correct form would be *vice versa*.^{११} The two syllables मेका are written over an erasure.

- 74 खट्टा श्रीमुह्यार्यसुतः प्राज्ञमणि[स]कः [1*] श्रीरवा सुगुणो धीमान् [न]
 75 वृत्तिनेकामिहानुते ॥[४८*] जाचेयो यासुणो धीमान्माधा(ध)वाराधनं-
 76 नः [1*] ¹प्राज्ञमः² र्षयक्षद्विद्वान् दुग्गा(र्गा)भट्टो वृत्तिभाक् ॥[४९*]
 दानपाल[नयो]-
 77 मध्ये दानाण्ये(ण्ये)योगुपालनं [1*] दानास्व(त्स)र्ममवाप्नोति पालनादसु(सु)तं
 78 पद ॥[५०*] स्वदत्तादि(हि)गुणं पुं(पु)ण्यं परदत्तानुपालनं [1*] परदत्ताप[हारि]-
 79 ण स्वदत्तं निष्फलं भवेत् ॥[५१*] स्वदत्ता(त्ता) ²परदत्ता वा यो हर(रि)त
 वसुं-
 80 धरा । षष्टिर्व[रस]³हस्ताणि विष्टायां जायते त्रि(क)मि[:*] ॥ [५२*]
 एकीव भगि-
 81 नी लोके सर्वेजानिव भूभुजा [1*] न भोग्या न ख(क)रवाहा(द्या)
 विप्रदत्ता [वसुं]-
 82 धरा ॥ [५३*] सामान्योयं धर्मसेतुं⁴नृपाणां कालि कालि पाल[नीयो]
 भवद्भि[:] [1*]
 83 सर्वाने[ता]न् भाविनः पार्थिवेद्रान् भूयो भूयो याचते राम[चंद्रः] ॥[५४*] श्री[॥*]
 84 Śrī-Virūpākṣa.⁵

TRANSLATION.

(Line 1.) Obeisance to Gaṇādhīpati.

(V. 1.) Invocation to Śiva [by the common verse *namas=tungṭa*, etc.].

(V. 2.) May the merciful elephant-faced (god), in the course of whose water-sport the oceans become (mere) ponds, protect the worlds.

(V. 3.) Salutation to that boar, at the tip of whose stalk-like snout, the earth, comprising the seven islands, seemed (to possess the beauty of) a lovely lotus.

(V. 4.) There is the Lord of stars (i.e. Moon), the younger brother of her who resides in the lotus (i.e. Lakṣmi), who shines in the region of the firmament with his (lustrous) ray and constantly illuminates the quarters, who is born of the milk-ocean and is renowned as the depository of *kalas* (digits), himself being made of nectar rays and who has obtained the position of a jewel in the head of Śambhu, the consort of Bhavāni (i.e. Pārvatī).

(V. 5.) In his family was born the king named Yadu; and this world was protected by Vāsudēva who was born in that family.

(V. 6.) There was king Saṅgama of good conduct, wearing Śaśimatuli (Śiva) as an ornamental jewel; on whose victory in battles, the crowds of enemy kings heavily burdened (with numbers) though vanquished reach the cardinal points in great haste; (but) whose (i.e., the King's) fame moves further on (passing) through intervening spaces amidst lords of the (eight) directions.

¹ Cancel the *visarga* after *ṣ*.

² The rest of this line and the next line up to वल्लभिः are written on an erasure.

³ Read °वर्षं.

⁴ Read °सेतुं पा°.

⁵ In Kāṇvaśa characters.

(Vv. 7 and 8.) Then came king Bukka, the foremost of the kingly race, in the fire of whose valour the hostile rulers were consumed as moths. In this king of great fame, the goddess of prosperity of the Karnāṭa (kingdom) rested with pleasure. And the goddess of the earth also for the first time realised the (significance of her) names *Vasundharā* and *Śhīrā* on account of her qualities of bearing wealth and remaining permanent.

(V. 9.) Like the moon of bright lustre rising from the Udaiya-Śaila of lofty peak, king Harihara of rising full glory took his birth from king Bukka who wore a splendid crown and filled all the quarters with abundant wealth acquired by taxation as the moon with the exuberent lustre of his rays.

(V. 10.) What could stand comparison with him the reflection of whose fame is protected by the deities of the quarters, by whom the (stern) Kali age has been turned into one better than the (golden) Kṛita age; by whom was caused the highway of the school of philosophy which considers Duty (*Karma*) as god. (Brahmā) free of all obstacles, and by whom the earth, having for (its) girdle the oceans, was ruled with justice.

(V. 11.) She, who was called *Māladēvi* because she was a combination of Śrī (i. e. Lakshmi) and Pārvatī and was in every way possessed of auspicious marks, was the consort of this king.

(Vv. 12 and 13.) Indra, desirous of removing his stains, obtained on earth the form of this (king) and in the name of *Dēvarāja*, with *Pratāpa* prefixed to it, ruled the world with his prowess. In the glowing fire of this king's valour, the Turushkas were scorched up and (other) hostile monarchs, with (their) bravery lost, sought self-protection in forests and ant-hills.

(V. 14.) The son of this husband of *Dāmāmbikā* was *Vijayabhūpati*, the destroyer of his enemies, the store-house of learning, of supreme knowledge and a hero.

(Vv. 15 and 16.) To him, through *Nārāyaṇīdēvi*, was born the king called *Pratāpa*, renowned as *Praudhapratāpa*, who had fame for wealth. He shone on this earth with many virtues, obtained fame by meritorious deeds, got the (kingdom) of *Ghaṇādri-rājya* from his (uterine) elder brother and was a *Pārijāta* in granting their desired objects to crowds of mendicants.

(V. 17.) His wife was *Siddhaladēvi*, the resort of all good qualities, like Lakshmi to *Nārāyaṇa* and *Śachi* to the enemy of *Namuchi* (i. e. Indra).

(V. 18.) Śiva (himself) was born of her under the well-known name of *Virūpāksha*, full of good qualities, a *rājādhirāja*, the head-ornament of kings, a munificent person and the one ocean of mercy.

(V. 19.) Acquiring the kingdom through his own prowess, attended with all kinds of prosperity, and conquering all his enemies with the point of his sword, he, as the play-ground of heroism, rejoices.

(V. 20.) He who is renowned as *Chhurikā-Bhālanētra* (i. e. Śiva in wielding the sword) and ripe of wisdom holds the high (sounding) titles, such as *Mūrudāyaraṇḍa*, *Pararāja-bhayaṇkara* and *Hindurāyasuratrāṇa*.

(Vv. 21 to 29.) On the bank of the *Tuṅgabhadra* river (and) in the presence of (the god) *Virūpāksha*, having obtained his ancestral throne, this king *Virūpāksha*, the foremost (among those) possessing noble virtues, rules the earth, surrounded by pious *Brāhmaṇas* assembled in his court. In the course of the Śaka years determined by the *Śālivāhana*-[Era], in the excellent year *Sarvajit* (corresponding to the year) expressed by *nine, eight, guṇas* (three) and *bhū* (one) (i. e. 1389), on the auspicious occasion of *Uttānadvādasi*, in the bright half of the month of *Kārttika*, he, the best of kings, the wise *Virūpāksha*, a *rājādhirāja* (and) *rājaparamēśvara*, of great valour, with the intention of making charity, made a grant to a *Brāhmaṇa* resident of *Niṭṭura*, who was the son of *Saraṅgārya*, who belonged to the *Ātrēya*-[gōtra], and was a student of the *Rik*-[Śākha], who was well versed in all the *Śāstras*, who knew the sixty-four arts

as well as the Sāṅkhya and the Mīmāṃsā (systems of philosophy), who was learned in the Vēdas and the six *aṅgas* (branches) with their meaning, and who was the author of the *Bhāṣhya-Bhāṣhā*, of (one) *khāri* of land situated to the west of the Hagari (river), within the boundary of (the village of) Yammegēṇṛu in Māḍa-nāḍa and in (the sub-division of) Hastināvati-vaḷita.

(Vv. 30 to 32.) Again he gave to the scholar and physician Virūpākshārya, son of Rasśvara of the Bhāradvāja-[*gōtra*] and a student of the Rik-Śākḥā, 7 *khāri* of valuable land yielding grain and fruit under the tank called Kṛishṇa, 3 *khāri* of land under (the tank) known as Kariya-kōre and of 3 *khāri* of land in (the village) called Chitukanāhāḷu—thus in all, the number of 13 *khāris*.

(Vv. 33 to 39.) Having petitioned thus to king Virūpāksha “Oh! King Virūpāksha! grant me the village situated there named Sōmalāpura”, Virapārya obtained from the king the (said) village. On hearing the request, king Virūpāksha made, in the presence of the god Virūpāksha on the bank of the river Tuṅgabhadra, a *sarvamānya* gift with gold and water, accompanied by libation of water as laid down by rule, of the fertile village (Sōmalāpuram) with all its royal revenue¹, together with canals and gardens, with its name changed into Virūpākshapuram,—for being enjoyed as long as the Moon and the Sun endure, or for being given away to Brāhmaṇas,—together with the eight kinds of enjoyment, i.e. (the right to own) the *nidhi*, *nikshēpa*, *jala*, *pāshāṇa*, *akshipī*, *āgāmi*, *siddha*, and *sādhyā*.

(V. 40.) The Brahman too, pleased and overpowered with joy, blessed the king with long life.

(V. 41.) (Here) will be written, in order, the *gōtra*, *śākḥā* and the father's name and the names of the Brahmanas. The number of *vr̥ttis* (who received shares in the village) is sixty.

(Vv. 42 to 45 contain the names of four of these donees.)

| Verses. | Name of the donee. | Father's name. | Gōtra. | Śākḥā. | Number of <i>vr̥ttis</i> owned. |
|---------|--------------------|---------------------|-----------------|-----------|---------------------------------|
| 42 | Malli-Bhaṭṭa . . . | Hēmaṇārya . . . | Śrīvata . . . | Rik . . . | 1 |
| 43 | Durgā-Bhaṭṭa . . . | Vallaṇ-Bhaṭṭa . . . | Vāsishṭha . . . | Do. . . | 1 |
| 44 | Sāraṅgārya . . . | Hamaṇārya . . . | Hārīta . . . | Do. . . | 1½ |
| 45 | Bhāyi-Bhaṭṭa . . . | Bhāyaṇārya . . . | Ātrēya . . . | Do. . . | 2 |

(V. 46.) The boundaries of this Brahman village (*agrahāra*) with their respective marks are written (below) in the language of the country, in the four directions commencing with the east, in order.

(V. 47.) The wise and learned Vallabha, son of Aitayārya, and the chief of the Secretaries (*Rāyasa*) belonging to the Vāsishṭha-[*gōtra*] and the Bahvricha-[*Śākḥā*], holds one *vr̥tti* (in this village).

(V. 48.) The intelligent smith Virapa of virtuous qualities, (who was) the engraver of this document and the son of the prosperous Muddapāchārya, holds one *vr̥tti* (in this village).

(V. 49.) The learned and intelligent Durgā-Bhaṭṭa of the Ātrēya-[*gōtra*] and the Yajus-[*Śākḥā*], the composer of this document and the son of Mādhavārādhyā, owns one *vr̥tti* (in this village).

(Vv. 50 to 54.) [Five of the usual imprecatory verses.]

(Line 84.) *Śrī-Virūpāksha*.

¹ The word अग्र has perhaps to be corrected into अग्नि

No. 15.—THE BRAHMA-SIDDHANTA OF BRAHMAGUPTA, A.D. 628 :

MEAN SYSTEM.

BY ROBERT SEWELL (I.C.S., RETIRED).

(Continued from Vol. XVII, p. 187.)

321. The Tables published in my last article (*above*, Vol. XVII) enabled the dates of ancient Indian inscriptions and records to be verified according to the requirements of the *Brahma-Siddhanta* with, as basis of calculation, the "true" or apparent motions of sun and moon. This mode of reckoning appears to have been introduced in the 11th century A.D. But the *Brahma-Siddhanta* was composed in A.D. 628 and for at least four centuries after its appearance details for the Calendar were almost certainly based on mean planetary motions; while it is believed that this mean system continued to guide the preparation of *pañchāngas* (almanacs) till a much later date—perhaps for several centuries in some parts of the country.

For the correct verification, therefore, of early dates it is necessary for historians to be provided with a set of Tables based on mean planetary motions and the postulates of the *Brahma-Siddhanta* in addition to those based on mean motions and the postulates of the *Ārya-Siddhanta*. The latter were provided in a previous article in this volume. The former are presented herewith. They cover a period of 800 years, from K.Y. 3700 to 4500, or from A.D. 599 to 1400.

The system of work is the same as in all my previous Tables, that is to say, it is the system of Largeteau as adopted by Professor H. Jacobi in the *Indian Antiquary*, Vol. VIII, and in the *Epigraphia Indica*, Vol. XI. Full examples shewing the method of work, which is very simple, are given in my former articles; others, specially concerning the system of mean reckoning on *Brahma-Siddhanta* principles, are given below.

In case of doubt as to which of the Tables already published should be used in the present case attention is directed to the accompanying § 329.

322. In examining the dates of records in earlier years it is necessary to remember that the modes of reckoning adopted were not always the same as those used in more recent years. As to eras, reference to articles 6-12 of my former work, *Indian Chronography*, is recommended. For other matters the late Dr. J. F. Fleet's remarks in the *Journal of the Royal Asiatic Society* for 1912, pp. 704-5, will be found very valuable.

Especially let it be borne in mind that the lunar month reckoning in early years was probably carried out on the *pūrṇimānta* system. According to the late Professor Kielhorn the earliest known date certainly in *amānta* reckoning belonged to the year A.D. 794. It is contained in the Paithān plates of the Rāshtrakūṭa king Gōvinda III (*Epig. Ind.*, III, 105; *Ind. Ant.*, XVII, p. 142, No. 9). As regards these two systems, the *amānta* and *pūrṇimānta* names of lunar months, see *Indian Calendar*, §§ 13, 45 (with Table on p. 26), 47, 51, and the late Saṅkara Balkrishna Dikshit's footnote on p. 31; also *Indian Chronography*, §§ 75, 76, p. 31.

Elements of the Brahma-Siddhanta mean reckoning.

323. The principal elements are fully stated in my former article on this authority (*above*, Vol. XVII, § 313). For calculation on the mean system the following notes are necessary.

(i) The length of the mean sidereal solar year is $365^d 6^h 12^m 9^s$, a fixture afterwards adopted by Bhāskarāchārya in his *Siddhanta-Siromani*, A.D. 1150.

(ii) The advance of a (distance of mean moon from mean sun)—which finally fixes the index of the *tithi* ($\frac{1}{30}$ th of a mean lunation) in measurement by 10,000ths of circle—in every civil day of 24 hours and in hours, minutes and seconds, has already been given for the *Siddhānta-Sirāmaṇi* in Tables LIV, A and B (*above*, Vol. XV). These Tables are applicable to the *Brahma-Siddhānta*.

(iii) For the sun's mean motion per day, hour, minute, etc., see Tables XLIII and XLIV (*above* Vol. XIV).

(iv) The advance of a in one mean solar month is, in 10,000ths of circle, 307·349156595.

(v) Each solar month consists of $30^d 10^h 31^m 0^s 75$. Table XCI below shows the interval of days, hours, etc., between the moment of mean *Mēsha-samkrānti*, when the mean sun is at celestial long. 0° (Table XC, cols. 13-17), and the moment of each subsequent *samkrānti* when the mean sun enters each of the twelve signs; and so enables the day and time when each mean solar month begins to be ascertained. The same Table gives the advance of a from its value at the moment of mean *Mēsha-samkrānti* to the same at each subsequent *samkrānti*.

(vi) The interval between the moments of true and mean *Mēsha-samkrānti*, i.e. between the moments of the astronomical beginning respectively of the true and mean solar year, which interval we call the *śodhya*, varies slightly year by year in consequence of the postulated shift of the sun's apsis (§ 313, VII, *above*). The exact intervals, century by century from K.Y. 3700 to 4800, were given above in § 315. The Table is here repeated and extended so as to embrace the whole period of the general Table XC below. The quantities were computed by Dr. Robert Schram.

TABLE B.

(*above*, p. 126.).

VALUE OF *śodhya* BY THE *Brahma-Siddhānta*.

| Kaliyuga | A.D. | ŚODHYA AT BEGINNING OF CENTURIES. | | | | |
|----------|-----------|-----------------------------------|----|----|---------|--------------------|
| | | D. | H. | M. | S. | Days and decimals. |
| 3700 | 599-600 | 2 | 4 | 8 | 59·8128 | 2·1729145 |
| 3800 | 699-700 | 2 | 4 | 9 | 20·160 | 2·1729400 |
| 3900 | 799-800 | 2 | 4 | 9 | 4·2192 | 2·1729655 |
| 4000 | 899-900 | 2 | 4 | 9 | 6·4224 | 2·1729910 |
| 4100 | 999-1000 | 2 | 4 | 9 | 8·6256 | 2·1730165 |
| 4200 | 1099-1100 | 2 | 4 | 9 | 10·8288 | 2·1730420 |
| 4300 | 1199-1200 | 2 | 4 | 9 | 13·0320 | 2·1730675 |
| 4400 | 1299-1300 | 2 | 4 | 9 | 15·2352 | 2·1730930 |
| 4500 | 1399-1400 | 2 | 4 | 9 | 17·4384 | 2·1731185 |

The moment of mean Mēsha-samkrānti, or the beginning of the mean solar year.

324. The general Table which follows (Table XC, cols. 15-17) states the moment of beginning of each mean solar year according to the *Brahma-Siddhanta*. The first entry is for the expired year 3700 of the Kaliyuga (A.D. 599-600), in which year the astronomical beginning is fixed as at 5^h 15^m after mean sunrise on Saturday, 21 March, A.D. 599. It is incumbent on me to prove the correctness of this fixture. Subsequent entries are based on it by the addition to it year by year of 365^d 6^h 12^m 9^s. Proof may be offered in three ways:—(A) by comparison with the date and time already found for the beginning of the true solar year K.Y. 3700, utilizing Dr. Schram's determination of the interval between the two occurrences; (B) by comparison with the date and time fixed for the beginning of the same mean solar year according to the *First Arya-Siddhanta*, allowing for the time-difference between the two authorities caused by their different estimate as to the length of the mean solar year, viz. 21^s; (C) by direct computation from the moment in K. Y. 0 of mean Mēsha-samkrānti, 3,700 years earlier, which, according to the *Brahma-Siddhanta* (§ 313, v, above), was exactly at mean sunrise, or 0^h 0^m 0^s Lankā time, on Friday, 18 Febr. (B.C. 3102).

A

| | | | <i>h.</i> | <i>m.</i> | <i>s.</i> |
|--------------------------------------|--------------------|---|-----------|-----------|-----------|
| Moment of true Mēsha-samkrānti in K. | | | | | |
| Y. 3700 (A.D. 599) (Table LXXXII, | (5) Thur., 19 Mar. | | 1 | 6 | 0.1872 |
| Vol. XVII, above). | | | | | |
| Sodhya as above (§ 323, Table) . | + (2) | 2 | | 4 | 8 59.8128 |
| Moment of mean Mēsha-samkrānti . | (0) Sat., 21 Mar. | | 5 | 15 | 0 |

B

[See *Indian Calendar*, Table I, cols. 13-17, for A.D. 599-600.]

| | | | <i>h.</i> | <i>m.</i> | <i>s.</i> |
|--|--------------------|---|-----------|-----------|-----------|
| True Mēsha-samkrānti by <i>Ārya-</i> | | | | | |
| <i>Siddhanta</i> | (5) Thur., 19 Mar. | | 23 | 17 | 30 |
| <i>Ārya-Siddhanta</i> sodhya | + (2) | 2 | | 3 | 32 30 |
| Mean Mēsha-samkrānti by <i>Ārya-</i> | | | | | |
| <i>Siddhanta</i> | (1) Sun., 22 Mar. | | 2 | 50 | 0 |
| Less Time-difference in 3,700 years ¹ . | | | | —21 | 35 0 |
| Mean Mēsha-samkrānti by <i>Brahma-</i> | | | | | |
| <i>Siddhanta</i> | (0) Sat., 21 Mar. | | 5 | 15 | 0 |

C

The epoch of the Kaliyuga was 0^h 0^m 0^s Lankā time, or exactly at mean sunrise on Friday. The length of the mean solar year being 365^d 6^h 12^m 9^s, the beginning of the next mean solar year took place 6^h 12^m 9^s after mean sunrise; and after the expiration of a century from the epoch the mean solar year began at 20^h 15^m 0^s after mean sunrise; so that after 37 centuries had passed the mean solar year K.Y. 3700 began at 5^h 15^m 0^s after mean sunrise.

When this latter calculation is carried out century by century, the figures shew that centuries 6, 12, 19, 25 and 32, five in all, were defective centuries consisting each of 36,525 days, the remainder being common centuries of 36,526 days. Since 36,526 divided by 7 leaves no

¹ See Table, § 273, in Article on the *Siddhanta-Sirōmuni* (Vol. XV above), which is equally applicable to the *Brahma-Siddhanta*; or refer to *Indian Chronography*, p. 61. The time-difference in 3,000 years is 17^h 30^m, in 200 years 4^h 5^m, total 21^h 35^m.

remainder and 36,525 divided by 7 leaves remainder 6, the results show that whereas century 0 began on a Friday, century 37 began on a Saturday.

Table XC therefore, as regards the moment of mean *Mēsha-samkrānti* in K.Y. 3700 expired, A.D. 599-600, is proved to be correct.

The beginning of the mean luni-solar year, i.e. the civil day on which the tithi Chaitra sukla 1 expired; and the value of a (mean tithi-index) at mean sunrise of that day. Amānta system.

325. In § 317 of my article on the *Brahma-Siddhānta* as calculated by the true motions of the sun and moon (*above*, Vol. XVII) it will be seen that the value of *a* at mean sunrise of Sunday, 22 March, A.D. 599 (K.Y. 3700) was proved to be, in measurement by 10,000ths of a circle, 6567·108945284. The mean solar century, however, began on the previous day, Saturday, 21 March. Deducting one day's value of *a*, viz. 338·631985412, from the above, we find that at mean sunrise of that Saturday the value of *a*, or the mean moon's distance from mean sun, was 6228·476959872. This was its value at the beginning of the 37th century K.Y. Hence the first entry in Table XCII below which gives the values at mean sunrise on the day on which each century began. The remaining figures in that Table were obtained by the addition to this value of the increase of *a* in a century. [See § 316 of the same article. The increase of *a* in a century of 36,525 days is 997·678896964, and in a common century of 36,526 days is 0·416684507.] Centuries 38 and 44 were defective centuries; the rest were common ones. For the beginnings of the odd years of centuries Table LXXXVII was used, the value of *a* there given being added to that for the century.

Thus was determined the value of *a* at mean sunrise of the day on which each mean solar year begins (*see Example 1 below*). From this is found the value of *a* at mean sunrise of the day on which the luni-solar year begins.

326. The first day of the luni-solar year is, according to the general rule, the civil day on which expired the first *tithi* of the bright half (*sukla*) of the *amānta* lunar month Chaitra, i.e. the *tithi* which begins at the moment of the first new moon after the *Mina-samkrānti*, or at the moment of the new moon when that *amānta* lunar month begins within the limits of which the *Mēsha-samkrānti* occurs. Having already established the value of *a* on the day in any year on which mean *Mēsha-samkrānti* occurred, we have to subtract from that value the increase of *a* in whole days between the two dates, the day on which the luni-solar year began being the earlier. The first 30 days' entries in Table LIVA (*above*, Vol. XV) enable this to be done. We select in that Table the *a* in col. 3 the value of which is next lower than the *a* of mean *Mēsha-samkrānti*, and the Table then shews in col. 1 the number of intervening days, and therefrom the European day and month, and, by subtraction, also (col. 2), the week-day. Deducting the selected *a* from the *a* of mean *Mēsha-samkrānti*, we have the *a* of mean sunrise of the day, Chaitra *sukla* 1, on which the mean luni-solar year begins.

Thus,—mean *Mēsha-samkrānti* of the year K.Y. 3700, A.D. 599-600, was shewn in § 325 to have occurred on (0) Saturday, 21 March A.D. 599, at mean sunrise on which day the mean moon's *tithi*-index *a* was 6228·4770. In Table LIVA, amongst the values of *a* in the first 30 days, it is seen that the next lower value is 6095·3757. $6228·4770 - 6095·3757 = 133·1013$. Col. 1 shews that the interval of days was 18, and col. 2 shews the week-day 4. Mean *Mēsha-samkrānti* occurred on (0) Saturday. $0 \text{ (or } 7) - 4 = 3$ Tuesday. It is therefore found that the day Chaitra *sukla* 1, the first civil day of the mean luni-solar year, was (3) Tuesday, 3 March A.D. 599, and that the value of *a* at mean sunrise on that day was 133·1013, shewing the currency of the *tithi* *sukla* 1. This is the entry in Table XC below.

It comes to the same thing if the *a* of Table XCIII below is added to the *a* of mean *Mēsha-samkrānti*, the Table being prepared for that purpose. The *a* of mean *Mēsha-*

¹ All values of *a* below 838·3 prove the *tithi* to have been the first of the *amānta* lunar month, i.e., the first *tithi* of the first (*sukla*) fortnight.

samkrānti was 6228·4770. We select such a value of a in col. 3 of that Table as, added to the former, makes a value between 0 and 333·8, the limits of the *tithi śukla* 1; and note the interval of days, and the week-day resulting by addition of the given week-day (col. 2) to the week-day of mean *Māsha-samkrānti*. Here the selected value of a is 3904·6243, since $6228·4770 + 3904·6243 = 133·1013$. The interval of days is 18 (col. 1). The week-day corresponding to the day *Chaitra śukla* 1 is $(0 + 3 =) 3$. The result is the same as obtained by the former process.

All the entries in the general Table XC, cols. 19-23, can be proved in this way.

To find the exact phase of the mean moon, i.e. the mean *tithi*-index a , on any day of any year, or at any particular moment of any day, it is only necessary to add to the value of a given in col. 23 of Table XC for the first day of the luni-solar year the amount of increase of a during the intervening whole days, hours, etc., given in Tables LIVA and B (*above*, Vol. XV).

The pūrṇimānta system of lunar months.

327. The *amānta* lunar month begins at the moment of new moon, the *pūrṇimānta* month at the moment of full moon a fortnight earlier; so that the fortnight (*śukla*) between new moon and full moon bears the same month-name by both systems, while the fortnight (*krishṇa*) between full moon and new moon bears, in the *pūrṇimānta* system, the name of the lunar month next after that which it bears in the *amānta* system. The *śukla* fortnight of the first lunar month, for instance, belongs to *Chaitra* by both systems. The following *krishṇa* fortnight, however, belongs to *Chaitra* by the *amānta* system, but to *Vaiśākha* by the *pūrṇimānta* system.

This should always be borne in mind when examining dates of inscriptions, especially in earlier years. For references to already published explanations see § 322 *above*, and for a Table of corresponding fortnights and lunar months see *Indian Calendar*, Table II, Part I.

The mean moon's nakshatra.

328. The note on this subject already given (§ 308) in dealing with calculation by the *First Ārya-Siddhānta* mean system (*above*, Vol. XVI) applies equally to the *Brahma-Siddhānta* mean system. It is unnecessary to repeat it.

Tables LXXX and LXXXI, fixing the sun's mean longitude for every day of the mean solar year according to the *First Ārya-Siddhānta*, may safely be used for general calculation by the *Brahma-Siddhānta*, since the difference between the two authorities in their estimates of the length of the year only amounts to 21 seconds.¹ But in any exceptionally close case the exact value, at mean sunrise of any day in the year, of s , or the sun's mean longitude, can be found by multiplying the sun's mean motion in one day (Table XLIII, Vol. XIV *above*), by the number of days' interval between the day on which mean *Māsha-samkrānti* occurred and the given day. The sun's mean motion in one day by the *Brahma-Siddhānta* is $59^m 8^s 172655$, or in 10,000ths of circle 27·377875426.

The *Rule for work* is as follows. (i) Find, as *above*, value of " a " at mean sunrise of given day. (ii) Note number of whole days intervening between the day of mean *Māsha-samkrānti* (Table XC *below*, col. 13, figure in brackets) and the given day. Turn to Table LXXX and note the increase of sun's mean long., " s ", during that interval. Deduct from this, by Table LXXXI, the increase of long. during the hours and minutes stated in col. 17 of Table XC. The result is the sun's mean long., s , at mean sunrise of given day. (iii) Add s to a . This = n , the required index of the mean *nakshatra*, or the mean moon's place in the heavens at that moment. Table LXVIII *above*, or Table VIII, *Indian Calendar*, will shew in which *nakshatra* the mean moon stood at the time.

¹ In measurement by 10,000ths of circle the total difference in 365 days is 0·03665, by which amount the *Brahma-Siddhānta* is the greater.

The 19-year intercalation cycle.

329. [See *Indian Calendar*, § 50, p. 29, and notes in previous articles above on the working of the cycle by different systems.] The sequence in the present case works perfectly regularly except in four instances. In every case except these, after four successive intercalations of the same lunar month at intervals of 19 years each, the intercalated month gives way to the month next preceding it. The exceptions are—a run of five mean intercalary Bhādrapadas between A.D. 746 and 822, five Āśvins between 952 and 1009, five Kārttikas between 1120 and 1196, and five Paushas between 1231 and 1307.

Working Tables.

330. For general guidance the following Tables, as given for work by the *Ārya-Siddhānta* (above, Vol. XVI), should be used, or the similar Tables published in the *Indian Calendar*.

Table LXII, or *Ind. Cal.*, Table II, Parts I and II, for names of months and *nakshatras*.

Table LXIIIA, or *Ind. Cal.*, Table III, Part I, for collective duration of mean lunar months.

Table LXVIII, or *Ind. Cal.*, Table VIII, for indices of *tithis*, *karaṇas*, *nakshatras* and *yōgas*.

Table LXIX, or *Ind. Cal.*, Table IX, for the serial number of days of the year and their names and numbers in European reckoning.

Table LXX, or *Ind. Cal.*, Table X, for conversion of the indices of *tithis*, *nakshatras* and *yōgas* into time.

Table LXXI, the European Calendar for 23 centuries. [Table XIII, *Indian Calendar*, may also be used, but the former is easier.]

Table XCI below gives the collective duration of mean solar months, measured from the moment of mean Mēsha-samkrānti, the astronomical beginning of the mean solar year; also the increase of *a*, the mean *tithi*-index, during the interval.

Table XCII shews the value of *a* at the beginning of each mean solar century of the Kaliyuga, that is to say, its value at mean sunrise of the day on which each such solar century began.

For odd years of such centuries Table LXXXVII (above, Vol. XVII) is to be used in conjunction with Table XCII, addition of the two given values of *a* yielding the value of *a* at mean sunrise of the day on which each mean year of the Kaliyuga solar century began.

For increase of *a* in subsequent days, hours, etc., in any K.Y. year, or any moment of any day Tables LIYA and B (above, Vol. XV) are to be used.

The use of Table XCIII is explained in § 326 above.

Table XCIV-A to F enables the units and decimals of units of results obtained from our system of reckoning in measurement by 10,000ths of a circle, to be converted readily into time, if required. The same can be converted into space-measurement in degrees, etc., by Table XLVB (above, Vol. XIV).

EXAMPLES.

[N.B.—Work may always be done in whole numbers, resorting to decimals only in close cases.]

Example 1. To find the mean *tithi*-index, or phase of moon, at mean sunrise of the day on which mean Mēsha-samkrānti occurred in any year.

This is a necessary operation for finding the *tithi*-index *a* at the moment of mean Mēsha-samkrānti, which is obtained by addition of the *a* of subsequent hours, minutes, etc., to the *a*

of mean sunrise. [The intercalation of lunar months is decided by the value of a at the moment of mean Mēsha-samkrānti.] Two cases are considered; A and B.

A. Take the year Kaliyuga 3851 expired. This was the Śaka year 672 expired. It began (Table XC, cols. 13-17) astronomically at 5^h 49^m 39^s after mean sunrise on Sunday, 22 March A.D. 750. We want to know the moon's phase, as shewn by the *tithi*-index a , at mean sunrise of that day. ["w.-d." = week-day.]

| | w.-d. | a. |
|---|-------|-----------|
| (Table XCII.) At beginning of K.Y. Century 38, mean sunrise | (0) | 5100.3761 |
| (Table LXXXVII.) At beginning of K.Y. year 51, do. | (1) | 8036.6248 |

At mean sunrise on the Sunday in question . . . (1) 3137.0004

B. The year K.Y. 3849, Śaka 670 both expired. This began (Table XC) at 17^h 25^m 21^s after mean sunrise on Thursday, 21 March A.D. 748. The first result shews the a for mean sunrise on Friday, 22 March, and the a for one day has to be deducted. This is due to the fact that Table LXXXVII has to serve for all K.Y. centuries, common or defective. The correction required is never more than that for one day.

| | | |
|---|-----|-----------|
| (Table XCII.) At beginning of K.Y. Century 38, mean sunrise | (0) | 5100.3761 |
| (Table LXXXVII.) At beginning of K.Y. year 49, do. | (6) | 835.2749 |

At mean sunrise on Friday, 22 Mar. (6) 5935.6510
Deduct one day's value of a — (1) —338.6320

At mean sunrise on Thursday, 21 Mar. (5) 5597.0190

Example 2. To find the civil day corresponding to Chaitra sukla 1, or the first civil day of the luni-solar year; and the value of a (place of mean moon) at mean sunrise thereon.

The civil day corresponding to mean Chaitra *sukla* 1 is that on which the mean *tithi* "*sukla* 1" expired. The *tithi*-index ($a =$) 333.3 marks the last instant of the first *sukla tithi*, so that we have to find a day on which at mean sunrise the *tithi*-index a was between 0 and 333.3. The *amānta* lunar month called "Chaitra" begins with the first new moon after the Mina-samkrānti, and the civil day called "Chaitra *sukla* 1" is necessarily earlier than the day on which mean Mēsha-samkrānti occurred. We have to find the number of days' interval between these two days. There are two ways of ascertaining these points, one by using Table XCIII and adding its figures, one by using Table LIVA and subtracting its figures.

(i) Take the year in Example 1, A, above. The value of a at mean sunrise of Sunday, 22 March A.D. 750, was found to be 3137.0004. We turn to Table XCIII and select in col. 3 such a value of a as, added to 3137.0004, will result in a total value of a between 0 and 333.3. This is found to be 6952.3121, the sum of the two (always disregarding quantities over 10,000) being 89.3125. The interval of whole days from mean Mēsha-samkrānti day was 9 (col. 1). Adding the number of the week-day (col. 2), viz. 5, to the week-day of mean Mēsha-samkrānti, viz. 1 Sunday, we have the week-day 6 Friday. Mean Mēsha-samkrānti occurred on Sunday, 22 March; and, therefore, it has been determined that the day Chaitra *sukla* 1, the first day of the luni-solar year, was Friday, 13 March A.D. 750, on which day, a being 89.3125, Chaitra *sukla* 1 was the current *tithi* at mean sunrise.

Similarly in Example 1, B. At mean sunrise of (5) Thursday, 21 March A.D. 748, a was 5597.0190. Add (Table XCIII, col. 3) 4691.8882. Result 178.9072. The interval of days was

(col. 1). 16. The week-day number was 5. The week-day of 21 March was 5 (Thursday). Hence the week-day 16 days earlier was $5+5=3$ Tuesday. So the beginning of the mean luni-solar year was on Tuesday, 5 March A.D. 748, on which date at mean sunrise the mean *tithi* " *śukla 1* " was current, the value of *a* at that moment being 178·9072.

The entries in Table XC against these years correspond to these results.

(ii) The same results are obtained by using Table LIVA (*above*, Vol. XV) and deducting the figures for the interval of whole days between the two occurrences. We note that value of *a* in the first 30 days of that Table which is next lower than the value of *a* already found for the day of mean *Mēsha-samkrānti*, and deduct the former from the latter. The number of intervening days (col. 1) and the number of week-days (col. 2) stand against the selected entry. This week-day number is deducted, of course, from the week-day of mean *Mēsha-samkrānti*. Thus—

| | | |
|---|--------------|------------|
| A. For K.Y. 3851, A.D. 750. | <i>w.-d.</i> | <i>a.</i> |
| (<i>Example 1, A.</i>) For mean sunrise on Sunday, 22 March A.D. 750. | (1) | 3137·0004 |
| (<i>Table LIVA.</i>) Next lower value of <i>a</i> , and week-day | —(2) | —3047·6879 |
| At mean sunrise of the day Chaitra <i>śukla 1</i> | (6) | 89·3125 |

The interval of days (col. 1) was nine. $6=$ Friday. Hence the day corresponding to Chaitra *śukla 1* was Friday, 13 March, and at mean sunrise the mean *tithi* Chaitra *śukla 1* was current, the value of *a* being 89·3125.

B. For K.Y. 3849, A.D. 748.

| | | |
|--|------|------------|
| (<i>Example 1, B.</i>) At mean sunrise on Thursday, 21 March A.D. 748. | (5) | 5597·0190 |
| (<i>Table LIVA.</i>) Next lower value of <i>a</i> , and week-day | —(2) | —5418·1118 |
| At mean sunrise of the day Chaitra <i>śukla 1</i> | (3) | 178·9072 |

The interval of days was 16. $3=$ Tuesday. Hence the day corresponding to Chaitra *śukla 1* was Tuesday, 5 March A.D. 748, and at mean sunrise the value of *a* was 178·9072.

These results are the same as those found by the former process. The examples enable any worker to prove the correctness of all my entries in cols. 19-23 of the general Table XC below.

Example 3. To find if a lunar month was or was not intercalated in the given year.

It will be enough, for this problem, to refer to Example 3 (*above*, Vol. XVI) of my article on the *Ārya-Siddhānta—mean system*. The work here is precisely similar; but for the values of *a* for hours and minutes Table LIVB (Vol. XV *above*) should be used, and Table XCI for the advance of *a* during the mean solar months, etc.

Example 4. To find the mean tithi-index a, shewing phase of moon, at mean sunrise of any day in the year; or at any moment of any day.

Table XC (cols. 19-23) gives the civil day corresponding to mean Chaitra *śukla 1* (the initial day of the mean luni-solar year), its serial number (in brackets) from January 1st of the equivalent A.D. year, and the mean *tithi*-index *a* at mean sunrise. Calculate by Table III, *Indian Calendar*, or by Table LXIIIA (*above*, Vol. XVI) the interval of whole days from that day to the given day, and, if necessary, the excess of hours, minutes, etc., to the given moment on that day. Add the increment of *a* for the interval of whole days from Table LIVA and for fractions of days from Table LIVB to the *a*, as above, of the initial day; as also the number of days' interval and the corresponding week-day.

E.g. Required the *tithi*-index at mean sunrise of the day called "Āshāḍha *sukla* 4" in Saka 547 expired, or A.D. 625-26, and the corresponding A.D. day and week-day.

In this year there was no intercalated month. The interval from the day "Chaitra *sukla* 1" to the day "Āshāḍha *sukla* 4" is approximately (Table LXIII-A above, p. 335) 93 days. We try this—

| | d. | w.-d. | a. |
|--|--------|-------|-----------|
| Table XC. Chaitra <i>sukla</i> 1, mean sunrise | (74) | (6) | 184·6506 |
| Table LIVA for 93 days | + (93) | (2) | 1492·7746 |

(167) (1) 1677·4252

This value of "a" (Table LXVIII) shews

that the 6th *sukla tithi* was current at mean

sunrise. ∴ Deduct for 2 days

—(2) —(2) —677·2640

At mean sunrise on Āshāḍha *sukla* 4 (165) (6) 1000·1612

Table LXVIII or VIII *Indian Calendar*, shews the currency of the 4th *sukla tithi*, at that mean sunrise, since its first point is when $a=1,000$. Day 165 was (Table IX, *Indian Calendar*, or LXIX, above) 14th June A.D. 625. 6=Friday. We learn, however, that the 4th mean *tithi* had begun only about $\frac{1}{4}$ of a minute before the moment of mean sunrise; so that if the basis of calculation had been the moment of true sunrise (a little earlier than mean sunrise) the corresponding day might have been Thursday, 13 June.

Example 5. To find the *nakshatra*, or place in the heavens of the mean moon, at mean sunrise of any day or of any later moment in the day.

Take the case in the last example. It is required to find the value of "n". the *nakshatra*-index, at mean sunrise of the day called, in the mean system, "Āshāḍha *sukla* 4" in the given year, A.D. 625.

The mean *tithi*-index, "a", at that mean sunrise was found to be 1000·1612. Since $s+a=n$ (§ 327 above), we have to ascertain the value of "s", the sun's mean longitude at that moment.

The day, 14 June, was the 165th day after Jan. 1 in that year. Mean Mēsha-*samkrānti* had taken place on (Table XC, cols. 13-17) the 79th day at 22^h 30^m 54^s after mean sunrise. The day 14 June was (165-79) 86 days later. We proceed as follows:—

| | s. |
|---|---------------|
| Table LXXX, p. 444. Interval of 86 days | 2354·4957 |
| Less (Table LXXXI) for 22 ^h | 25·0964 |
| 30 ^m | 0·5704 |
| 54 ^s | 0·0171 |
| | <hr/> 25·6839 |
| | —25·6839 |

At mean sunrise on the day Āshāḍha *sukla* 4 sun's mean long., "s" = 2328·8118

Add "a" as already found for that moment 1000·1612

At mean sunrise on that day "n" = 3328·9730

This last is the required *nakshatra*-index. Reference to Table VIII, *Indian Calendar*, or Table LXVIII (above Vol. XVI) shews that the moon was then in the *nakshatra* Aślēṣā by the

equal-space system of division of the ecliptic, which ended when " n " = 3333·3; but that by the system of Garga or the *Brahma-Siddhanta* (our present authority) she was in Maghā, of which the ending points are respectively 3518·5 and 3477·1. Converted into degrees (Table VIII-B, *Indian Calendar*, or Table XLV-B, above) the moon at that mean sunrise stood at about $119^{\circ}51'$.

For the value of " n " at any later hour of the given day the index-value for the time since mean sunrise must be added (Table LXXXI) to the " n " of mean sunrise. At about 3 hours 50 min. after mean sunrise, for instance, the mean moon entered Maghā by the equal-space system; for the beginning point of that *nakshatra* is 3333·3. The increase of " n " in 3 hours 50 min. is 4·3728, and $3328\cdot9730 + 4\cdot3728 = 3333\cdot3458$.

Example 6. To find the *yōga*, " y ", at the same moment as in *Example 5*.

The formula for finding the *yōga*-index is either $s+n="y"$, the *yōga*-index; or, in cases where it is not necessary to calculate n (the *nakshatra*), $2"s"+a="y"$. Here, at mean sunrise on 14 June A.D. 625, we have found " s " = 2328·8118 and " n " = 3328·9730. The *yōga*-index, " y ", therefore, = 5657·7848; and reference to Table VIII, *Indian Calendar*, cols. 12-13, or Table LXVIII (above, Vol. XVI, cols. 6, 8, 9, 10), shews that the mean moon was at that moment in the *yōga* Siddhi. Again $2s=4657\cdot6236$, and this + " a ," which was found to be $1000\cdot1612=5657\cdot7848$, the same as before.

TABLE XC.

REMARKS.

K.Y. 3736 expired, A.D. 635-36. A very close case in the matter of intercalation of lunar month. Mean new moon occurred about 2^m after the moment of the Karka-*saṃkrānti* (mean sun at long. 90°), and, therefore, at that moment the mean moon was waning, while she was waxing at the next, Simha-*saṃkrānti* (mean sun at 120°). Accordingly the intercalated month was Śrāvaṇa.

K.Y. 3923 expired, A.D. 822-23. According to the 19-year sequence of intercalations the same month is generally intercalated four times running, i.e. at intervals of 19 years each. Here, however, is an instance of a fifth intercalation of the same month. [See § 329 of text above.]

K.Y. 4110 expired, A.D. 1009-10. A similar case. Āśvina intercalated for the fifth time.

K.Y. 4297 expired, A.D. 1196-97. Another. Kārttika intercalated for the fifth time.

K.Y. 4408 expired, A.D. 1307-08. Another. Pausa intercalated for the fifth time. This was a very close case. The moment of mean new moon was about 1 minute after the mean sun reached the Dhanus-*saṃkrānti* (mean sun at long. 240°), but she was actually waning at the moment of the *saṃkrānti* and was waxing at the next, Makara, *saṃkrānti*. Consequently the lunar month Pausa was intercalated.

TABLE

MEAN SYSTEM TABLE,

Numbers of columns conform

(Cols. 1 to 4.)—The years herein stated are the *current* years corresponding(Cols. 6 and 7.)—*Samvatsara*-names of mean solar years in italics shew cases

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|---|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3701 | 522 | 657 | 6 | | 599-600 | 50 Anala . . . | | ... |
| 3702 | 523 | 658 | 7 | | *600-01 | 51 Piṅgala . . . | | 2 Vaiśākha . |
| 3703 | 524 | 659 | 8 | | 601-02 | 52 Kālayukta . . . | | ... |
| 3704 | 525 | 660 | 9 | | 602-03 | 53 Siddhārthin . . . | | 10 Pausa . |
| 3705 | 526 | 661 | 10 | | 603-04 | 54 Raudra . . . | | ... |
| 3706 | 527 | 662 | 11 | | *604-05 | 55 Durmati . . . | | ... |
| 3707 | 528 | 663 | 12 | | 605-06 | 56 Dundubhi . . . | | 7 Āśvina . |
| 3708 | 529 | 664 | 13 | | 606-07 | 57 Rudhirōdgārin . . . | | ... |
| 3709 | 530 | 665 | 14 | | 607-08 | 58 Raktāksha . . . | | ... |
| 3710 | 531 | 666 | 15 | | *608-09 | 59 Krōdhana . . . | | 8 Jyēṣṭha . |
| 3711 | 532 | 667 | 16 | | 609-10 | 60 Kshaya . . . | | ... |
| 3712 | 533 | 668 | 17 | | 610-11 | 1 Prabhava . . . | | 12 Phālguna . |
| 3713 | 534 | 669 | 18 | | 611-12 | 2 Vibhava . . . | | ... |
| 3714 | 535 | 670 | 19 | | *612-13 | 3 Śukla . . . | | ... |
| 3715 | 536 | 671 | 20 | | 613-14 | 4 Pramōda . . . | | 3 Kārttika . |
| 3716 | 537 | 672 | 21 | | 614-15 | 5 Prajāpati . . . | | ... |
| 3717 | 538 | 673 | 22 | | 615-16 | 6 Aṅgiras . . . | | ... |
| 3718 | 539 | 674 | 23 | | *616-17 | 7 Śrīmukha . . . | | 5 Śrāvapa . |
| 3719 | 540 | 675 | 24 | | 617-18 | 8 Bhāva . . . | | ... |
| 3720 | 541 | 676 | 25 | | 618-19 | 9 Yuvan . . . | | ... |

XO.

BRAHMA-SIDDHANTA.

to Table I, "Indian Calendar."

to the A.D. years in col. 5; as in Table I, "Indian Calendar."

where differences exist from Sūrya-Siddhānta nomenclature in true solar years.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṅkrānti. | Day and month, A.D. | Week-day. | α (here = δ , the index of the tithi). | |
| 18 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 21 Mar. (80) . . . | 0 Sat. . . | 5 15 0 | 3 Mar. (62) . . . | 3 Tues. . . | 133-1013 | 3701 |
| 20 Mar. (80) . . . | 1 Sun. . . | 11 27 9 | 20 Feb. (51) . . . | 0 Sat. . . | 8-8241 | 3702 |
| 20 Mar. (79) . . . | 2 Mon. . . | 17 39 18 | 10 Mar. (69) . . . | 6 Fri. . . | 43-5065 | 3703 |
| 20 Mar. (79) . . . | 3 Tues. . . | 23 51 27 | 28 Feb. (59) . . . | 4 Wed. . . | 257-8614 | 3704 |
| 21 Mar. (80) . . . | 5 Thur. . . | 6 3 36 | 19 Mar. (78) . . . | 3 Tues. . . | 292-5437 | 3705 |
| 20 Mar. (80) . . . | 6 Fri. . . | 12 15 45 | 7 Mar. (67) . . . | 0 Sat. . . | 168-2666 | 3706 |
| 20 Mar. (79) . . . | 0 Sat. . . | 18 27 54 | 24 Feb. (55) . . . | 4 Wed. . . | 43-3394 | 3707 |
| 21 Mar. (80) . . . | 2 Mon. . . | 0 40 3 | 15 Mar. (74) . . . | 3 Tues. . . | 78-6718 | 3708 |
| 21 Mar. (80) . . . | 3 Tues. . . | 6 52 12 | 5 Mar. (64) . . . | 1 Sun. . . | 293-0266 | 3709 |
| 20 Mar. (80) . . . | 4 Wed. . . | 13 4 21 | 22 Feb. (53) . . . | 5 Thur. . . | 168-7494 | 3710 |
| 20 Mar. (79) . . . | 5 Thur. . . | 19 16 30 | 12 Mar. (71) . . . | 4 Wed. . . | 203-4218 | 3711 |
| 21 Mar. (80) . . . | 0 Sat. . . | 1 28 39 | 1 Mar. (60) . . . | 1 Sun. . . | 79-1547 | 3712 |
| 21 Mar. (80) . . . | 1 Sun. . . | 7 40 48 | 20 Mar. (79) . . . | 0 Sat. . . | 113-8371 | 3713 |
| 20 Mar. (80) . . . | 2 Mon. . . | 13 52 57 | 9 Mar. (69) . . . | 5 Thur. . . | 328-1918 | 3714 |
| 20 Mar. (79) . . . | 3 Tues. . . | 20 5 6 | 26 Feb. (57) . . . | 2 Mon. . . | 203-9147 | 3715 |
| 21 Mar. (80) . . . | 5 Thur. . . | 2 17 15 | 17 Mar. (76) . . . | 1 Sun. . . | 238-5972 | 3716 |
| 21 Mar. (80) . . . | 6 Fri. . . | 8 29 24 | 6 Mar. (65) . . . | 5 Thur. . . | 114-3199 | 3717 |
| 20 Mar. (80) . . . | 0 Sat. . . | 14 41 33 | 24 Feb. (55) . . . | 3 Tues. . . | 328-6747 | 3718 |
| 20 Mar. (79) . . . | 1 Sun. . . | 20 53 42 | 13 Mar. (72) . . . | 1 Sun. . . | 24-7252 | 3719 |
| 21 Mar. (80) . . . | 3 Tues. . . | 3 5 51 | 3 Mar. (62) . . . | 6 Fri. . . | 239-0801 | 3720 |

TABLE

| CONCURRENT YEAR. | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. | |
|------------------|-------|--------------------|---------------------------------|---------|---------|----------------------|---|---------------------|
| Kali. | Saka. | Chaitradi Vikrama. | Mēhādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | | Northern
system. |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3721 | 542 | 677 | 26 | | 619-20 | 10 Dhātṛi . . . | | 1 Chaitra . |
| 3722 | 543 | 678 | 27 | | *620-21 | 11 Isvara . . . | | ... |
| 3723 | 544 | 679 | 28 | | 621-22 | 12 Bahudhānya . . . | | 10 Pausa . |
| 3724 | 545 | 680 | 29 | | 622-23 | 13 Pramāthin . . . | | ... |
| 3725 | 546 | 681 | 30 | | 623-24 | 14 Vikrama . . . | | ... |
| 3726 | 547 | 682 | 31 | | *624-25 | 15 Vṛisha . . . | | 6 Bhādrapada . |
| 3727 | 548 | 683 | 32 | | 625-26 | 16 Chitrabhānu . . . | | ... |
| 3728 | 549 | 684 | 33 | | 626-27 | 17 Subhānu . . . | | ... |
| 3729 | 550 | 685 | 34 | | 627-28 | 18 Tārana . . . | | 3 Jyēshtha . |
| 3730 | 551 | 686 | 35 | | *628-29 | 19 Pārthiva . . . | | ... |
| 3731 | 552 | 687 | 36 | | 629-30 | 20 Vyaya . . . | | 11 Māgha . |
| 3732 | 553 | 688 | 37 | | 630-31 | 21 Sarvajit . . . | | ... |
| 3733 | 554 | 689 | 38 | | 631-32 | 22 Sarvadhārin . . . | | ... |
| 3734 | 555 | 690 | 39 | | *632-33 | 23 Virōdhin . . . | | 8 Kārttika . |
| 3735 | 556 | 691 | 40 | | 633-34 | 24 Vikṛita . . . | | ... |
| 3736 | 557 | 692 | 41 | | 634-35 | 25 Khara . . . | | ... |
| 3737 | 558 | 693 | 42 | | 635-36 | 26 Nandana . . . | | 5 Śrāvana § . |
| 3738 | 559 | 694 | 43 | | *636-37 | 27 Vijaya . . . | | ... |
| 3739 | 560 | 695 | 44 | | 637-38 | 28 Jaya . . . | | ... |
| 3740 | 561 | 696 | 45 | | 638-39 | 29 Manmatha . . . | | 1 Chaitra . |
| 3741 | 562 | 697 | 46 | | 639-40 | 30 Darmukha . . . | | ... |
| 3742 | 563 | 698 | 47 | | *640-41 | 31 Hēmalamba . . . | | 10 Pausa . |
| 3743 | 564 | 699 | 48 | | 641-42 | 32 Vilamba . . . | | ... |
| 3744 | 565 | 700 | 49 | | 642-43 | 33 Vikārin . . . | | ... |
| 3745 | 566 | 701 | 50 | | 643-44 | 34 Śārvarin . . . | | 6 Bhādrapada . |

§ See "Remarks," p. 215 above.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tiki</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 21 Mar. (80) . . | 4 Wed. . . | 9 18 0 | 20 Feb. (51) . . | 3 Tues. . . | 114·8028 | 3721 |
| 20 Mar. (80) . . | 5 Thur. . . | 15 30 9 | 10 Mar. (70) . . | 2 Mon. . . | 149·4852 | 3722 |
| 20 Mar. (79) . . | 6 Fri. . . | 21 42 18 | 27 Feb. (58) . . | 6 Fri. . . | 25·2081 | 3723 |
| 21 Mar. (80) . . | 1 Sun. . . | 3 54 27 | 18 Mar. (77) . . | 5 Thur. . . | 59·8904 | 3724 |
| 21 Mar. (80) . . | 2 Mon. . . | 10 6 36 | 8 Mar. (67) . . | 3 Tues. . . | 274·2453 | 3725 |
| 20 Mar. (80) . . | 3 Tues. . . | 16 18 45 | 25 Feb. (56) . . | 0 Sat. . . | 149·9682 | 3726 |
| 20 Mar. (79) . . | 4 Wed. . . | 22 30 54 | 15 Mar. (74) . . | 6 Fri. . . | 184·6506 | 3727 |
| 21 Mar. (80) . . | 6 Fri. . . | 4 43 3 | 4 Mar. (63) . . | 3 Tues. . . | 60·3734 | 3728 |
| 21 Mar. (80) . . | 0 Sat. . . | 10 55 12 | 22 Feb. (53) . . | 1 Sun. . . | 274·7282 | 3729 |
| 20 Mar. (80) . . | 1 Sun. . . | 17 7 21 | 12 Mar. (72) . . | 0 Sat. . . | 309·4106 | 3730 |
| 20 Mar. (79) . . | 2 Mon. . . | 23 19 30 | 1 Mar. (60) . . | 4 Wed. . . | 185·1834 | 3731 |
| 21 Mar. (80) . . | 4 Wed. . . | 5 31 39 | 20 Mar. (79) . . | 3 Tues. . . | 219·8158 | 3732 |
| 21 Mar. (80) . . | 5 Thur. . . | 11 43 48 | 9 Mar. (68) . . | 0 Sat. . . | 95·5387 | 3733 |
| 20 Mar. (80) . . | 6 Fri. . . | 17 55 57 | 27 Feb. (58) . . | 5 Thur. . . | 309·8935 | 3734 |
| 21 Mar. (80) . . | 1 Sun. . . | 0 8 6 | 16 Mar. (75) . . | 3 Tues. . . | 5·9439 | 3735 |
| 21 Mar. (80) . . | 2 Mon. . . | 6 20 15 | 6 Mar. (65) . . | 1 Sun. . . | 230·2987 | 3736 |
| 21 Mar. (80) . . | 3 Tues. . . | 12 32 24 | 23 Feb. (54) . . | 5 Thur. . . | 96·0216 | 3737 |
| 20 Mar. (80) . . | 4 Wed. . . | 18 44 33 | 13 Mar. (73) . . | 4 Wed. . . | 130·7040 | 3738 |
| 21 Mar. (80) . . | 6 Fri. . . | 0 56 42 | 2 Mar. (61) . . | 1 Sun. . . | 6·4268 | 3739 |
| 21 Mar. (80) . . | 0 Sat. . . | 7 8 51 | 20 Feb. (51) . . | 6 Fri. . . | 220·7816 | 3740 |
| 21 Mar. (80) . . | 1 Sun. . . | 13 21 0 | 11 Mar. (70) . . | 5 Thur. . . | 255·4840 | 3741 |
| 20 Mar. (80) . . | 2 Mon. . . | 19 33 9 | 28 Feb. (59) . . | 2 Mon. . . | 131·1868 | 3742 |
| 21 Mar. (80) . . | 4 Wed. . . | 1 45 18 | 18 Mar. (77) . . | 1 Sun. . . | 165·8692 | 3743 |
| 21 Mar. (80) . . | 5 Thur. . . | 7 57 27 | 7 Mar. (66) . . | 5 Thur. . . | 41·5921 | 3744 |
| 21 Mar. (80) . . | 6 Fri. . . | 14 9 36 | 25 Feb. (56) . . | 3 Tues. . . | 255·9470 | 3745 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3746 | 567 | 702 | 51 | | *644-45 | 35 Plava . . . | | ... |
| 3747 | 568 | 703 | 52 | | 645-46 | 36 Śubhakṛit . . . | | ... |
| 3748 | 569 | 704 | 53 | | 646-47 | 37 Śōbhana . . . | | 3 Jyēshṭha . |
| 3749 | 570 | 705 | 54 | | 647-48 | 38 Krōdhin . . . | | ... |
| 3750 | 571 | 706 | 55 | | *648-49 | 39 Viśvāvasu † . . . | | 11 Māgha . |
| 3751 | 572 | 707 | 56 | | 649-50 | 41 Plavaṅga . . . | | ... |
| 3752 | 573 | 708 | 57 | | 650-51 | 42 Kīlaka . . . | | ... |
| 3753 | 574 | 709 | 58 | | 651-52 | 43 Saumya . . . | | 8 Kārttika |
| 3754 | 575 | 710 | 59 | | *652-53 | 44 Sādhārāna . . . | | ... |
| 3755 | 576 | 711 | 60 | | 653-54 | 45 Virōdhakṛit . . . | | ... |
| 3756 | 577 | 712 | 61 | | 654-55 | 46 Paridhāvin . . . | | 4 Āshāḍha . |
| 3757 | 578 | 713 | 62 | | 655-56 | 47 Pramādin . . . | | ... |
| 3758 | 579 | 714 | 63 | | *656-57 | 48 Ānanda . . . | | ... |
| 3759 | 580 | 715 | 64 | | 657-58 | 49 Rākshasa . . . | | 1 Chaitra . |
| 3760 | 581 | 716 | 65 | | 658-59 | 50 Anala . . . | | ... |
| 3761 | 582 | 717 | 66 | | 659-60 | 51 Piṅgala . . . | | 9 Mārgaśīra . |
| 3762 | 583 | 718 | 67 | | *660-61 | 52 Kālayukta . . . | | ... |
| 3763 | 584 | 719 | 68 | | 661-62 | 53 Siddhārthin . . . | | ... |
| 3764 | 585 | 720 | 69 | | 662-63 | 54 Raudra . . . | | 6 Bhādrapada . |
| 3765 | 586 | 721 | 70 | | 663-64 | 55 Durmati . . . | | ... |
| 3766 | 587 | 722 | 71 | | *664-65 | 56 Dundubhi . . . | | ... |
| 3767 | 588 | 723 | 72 | | 665-66 | 57 Rudhirōdgārin . . . | | 2 Vaiśākha . |
| 3768 | 589 | 724 | 73 | | 666-67 | 58 Raktaksha . . . | | ... |
| 3769 | 590 | 725 | 74 | | 667-68 | 59 Krōdhana . . . | | 11 Māgha . |
| 3770 | 591 | 726 | 75 | | *668-69 | 60 Kshaya . . . | | ... |

† 40 Parābhava was suppressed, both in mean and true reckoning.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-sankrānti. | Day and month, A.D. | Week-day. | a (here = t , the index of the $tithi$). | |
| 18 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 20 Mar. (80) . . . | 0 Sat. . . | 20 21 45 | 15 Mar. (75) . . . | 2 Mon. . . | 290-8293 | 3746 |
| 21 Mar. (80) . . . | 2 Mon. . . | 2 38 54 | 4 Mar. (68) . . . | 6 Fri. . . | 166-8522 | 3747 |
| 21 Mar. (80) . . . | 3 Tues. . . | 8 46 3 | 21 Feb. (52) . . . | 3 Tues. . . | 42-0750 | 3748 |
| 21 Mar. (80) . . . | 4 Wed. . . | 14 58 12 | 12 Mar. (71) . . . | 2 Mon. . . | 76-7573 | 3749 |
| 20 Mar. (80) . . . | 5 Thur. . . | 21 10 21 | 1 Mar. (61) . . . | 0 Sat. . . | 291-1122 | 3750 |
| 21 Mar. (80) . . . | 0 Sat. . . | 3 22 30 | 20 Mar. (79) . . . | 6 Fri. . . | 325-7946 | 3751 |
| 21 Mar. (80) . . . | 1 Sun. . . | 9 34 39 | 9 Mar. (68) . . . | 3 Tues. . . | 201-5175 | 3752 |
| 21 Mar. (80) . . . | 2 Mon. . . | 15 46 48 | 26 Feb. (57) . . . | 0 Sat. . . | 77-2402 | 3753 |
| 20 Mar. (80) . . . | 3 Tues. . . | 21 58 57 | 16 Mar. (76) . . . | 0 Sat. . . | 111-9227 | 3754 |
| 21 Mar. (80) . . . | 5 Thur. . . | 4 11 6 | 6 Mar. (65) . . . | 4 Wed. . . | 326-2775 | 3755 |
| 21 Mar. (80) . . . | 6 Fri. . . | 10 23 15 | 23 Feb. (54) . . . | 1 Sun. . . | 202-0003 | 3756 |
| 21 Mar. (80) . . . | 0 Sat. . . | 16 35 24 | 14 Mar. (73) . . . | 0 Sat. . . | 236-6827 | 3757 |
| 20 Mar. (80) . . . | 1 Sun. . . | 22 47 33 | 2 Mar. (62) . . . | 4 Wed. . . | 112-4056 | 3758 |
| 21 Mar. (80) . . . | 3 Tues. . . | 4 59 42 | 20 Feb. (51) . . . | 2 Mon. . . | 326-7604 | 3759 |
| 21 Mar. (80) . . . | 4 Wed. . . | 11 11 51 | 10 Mar. (69) . . . | 0 Sat. . . | 22-8108 | 3760 |
| 21 Mar. (80) . . . | 5 Thur. . . | 17 24 0 | 28 Feb. (59) . . . | 5 Thur. . . | 237-1656 | 3761 |
| 20 Mar. (80) . . . | 6 Fri. . . | 23 36 9 | 18 Mar. (78) . . . | 4 Wed. . . | 271-8490 | 3762 |
| 21 Mar. (80) . . . | 1 Sun. . . | 5 48 18 | 7 Mar. (66) . . . | 1 Sun. . . | 147-5708 | 3763 |
| 21 Mar. (80) . . . | 2 Mon. . . | 12 0 27 | 24 Feb. (55) . . . | 5 Thur. . . | 23-2937 | 3764 |
| 21 Mar. (80) . . . | 3 Tues. . . | 18 12 36 | 15 Mar. (74) . . . | 4 Wed. . . | 57-9761 | 3765 |
| 21 Mar. (81) . . . | 5 Thur. . . | 0 24 45 | 4 Mar. (64) . . . | 2 Mon. . . | 272-3310 | 3766 |
| 21 Mar. (80) . . . | 6 Fri. . . | 6 36 54 | 21 Feb. (52) . . . | 6 Fri. . . | 148-0537 | 3767 |
| 21 Mar. (80) . . . | 0 Sat. . . | 12 49 3 | 12 Mar. (71) . . . | 5 Thur. . . | 182-7361 | 3768 |
| 21 Mar. (80) . . . | 1 Sun. . . | 19 1 12 | 1 Mar. (60) . . . | 2 Mon. . . | 58-4590 | 3769 |
| 21 Mar. (81) . . . | 3 Tues. . . | 1 13 21 | 19 Mar. (79) . . . | 1 Sun. . . | 93-1413 | 3770 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>addhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Śaka. | Chaitradī Vikrama. | Māghadī solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3771 | 592 | 727 | 76 | | 669-70 | 1 Prabhava . . . | | ... |
| 3772 | 593 | 728 | 77 | | 670-71 | 2 Vibhava . . . | | 7 Āśvina . |
| 3773 | 594 | 729 | 78 | | 671-72 | 3 Sukla . . . | | ... |
| 3774 | 595 | 730 | 79 | | *672-73 | 4 Pramōda . . . | | ... |
| 3775 | 596 | 731 | 80 | | 673-74 | 5 Prajāpati . . . | | 4 Āshāḍha . |
| 3776 | 597 | 732 | 81 | | 674-75 | 6 Āngirasa . . . | | ... |
| 3777 | 598 | 733 | 82 | | 675-76 | 7 Śrinukha . . . | | ... |
| 3778 | 599 | 734 | 83 | | *676-77 | 8 Bhāva . . . | | 1 Chaitra . |
| 3779 | 600 | 735 | 84 | | 677-78 | 9 Yuvan . . . | | ... |
| 3780 | 601 | 736 | 85 | | 678-79 | 10 Dhātṛi . . . | | 9 Mārgaśīra . |
| 3781 | 602 | 737 | 86 | | 679-80 | 11 Īśvara . . . | | ... |
| 3782 | 603 | 738 | 87 | | *680-81 | 12 Bahudhānya . . . | | ... |
| 3783 | 604 | 739 | 88 | | 681-82 | 13 Pramāthina . . . | | 6 Bhādrapada . |
| 3784 | 605 | 740 | 89 | | 682-83 | 14 Vikrama . . . | | ... |
| 3785 | 606 | 741 | 90 | | 683-84 | 15 Vṛisha . . . | | ... |
| 3786 | 607 | 742 | 91 | | *684-85 | 16 Chitrabhānu . . . | | 2 Vāśākha . |
| 3787 | 608 | 743 | 92 | | 685-86 | 17 Subhānu . . . | | ... |
| 3788 | 609 | 744 | 93 | | 686-87 | 18 Tāraka . . . | | 11 Māgha . |
| 3789 | 610 | 745 | 94 | | 687-88 | 19 Pārthiva . . . | | ... |
| 3790 | 611 | 746 | 95 | | *688-89 | 20 Vyaya . . . | | ... |
| 3791 | 612 | 747 | 96 | | 689-90 | 21 Sarvajit . . . | | 7 Āśvina . |
| 3792 | 613 | 748 | 97 | | 690-91 | 22 Sarvadhārin . . . | | ... |
| 3793 | 614 | 749 | 98 | | 691-92 | 23 Virōdhina . . . | | ... |
| 3794 | 615 | 750 | 99 | | *692-93 | 24 Vihṛita . . . | | 4 Āshāḍha . |
| 3795 | 616 | 751 | 100 | | 693-94 | 25 Khara . . . | | ... |

KO—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|--------------|------------------------------|---|--------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Māha-samkrānti. | Day and month, A.D. | Week-day. | s (here + t, the index of the <i>śukla</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 21 Mar. (80) . . . | 4 Wed. . . | 7 25 30 | 9 Mar. (68) . . . | 6 Fri. . . | 307-4962 | 3771 |
| 21 Mar. (80) . . . | 5 Thurs. . . | 13 37 39 | 26 Feb. (57) . . . | 3 Tues. . . | 183-2190 | 3772 |
| 21 Mar. (80) . . . | 6 Fri. . . | 19 49 48 | 17 Mar. (76) . . . | 2 Mon. . . | 217-9015 | 3773 |
| 21 Mar. (81) . . . | 1 Sun. . . | 2 1 57 | 5 Mar. (65) . . . | 6 Fri. . . | 93-6242 | 3774 |
| 21 Mar. (80) . . . | 2 Mon. . . | 8 14 6 | 23 Feb. (54) . . . | 4 Wed. . . | 307-9791 | 3775 |
| 21 Mar. (80) . . . | 3 Tues. . . | 14 26 15 | 13 Mar. (72) . . . | 2 Mon. . . | 4-0295 | 3776 |
| 21 Mar. (80) . . . | 4 Wed. . . | 20 38 24 | 3 Mar. (62) . . . | 0 Sat. . . | 218-3843 | 3777 |
| 21 Mar. (81) . . . | 6 Fri. . . | 2 50 33 | 20 Feb. (51) . . . | 4 Wed. . . | 94-1071 | 3778 |
| 21 Mar. (80) . . . | 0 Sat. . . | 9 2 42 | 10 Mar. (69) . . . | 3 Tues. . . | 128-7896 | 3779 |
| 21 Mar. (80) . . . | 1 Sun. . . | 15 14 51 | 27 Feb. (58) . . . | 0 Sat. . . | 4-5124 | 3780 |
| 21 Mar. (80) . . . | 2 Mon. . . | 21 27 0 | 18 Mar. (77) . . . | 6 Fri. . . | 39-1947 | 3781 |
| 21 Mar. (81) . . . | 4 Wed. . . | 3 39 9 | 7 Mar. (67) . . . | 4 Wed. . . | 258-5496 | 3782 |
| 21 Mar. (80) . . . | 5 Thurs. . . | 9 51 18 | 24 Feb. (55) . . . | 1 Sun. . . | 129-2725 | 3783 |
| 21 Mar. (80) . . . | 6 Fri. . . | 16 3 27 | 15 Mar. (74) . . . | 0 Sat. . . | 163-9549 | 3784 |
| 21 Mar. (80) . . . | 0 Sat. . . | 22 15 36 | 4 Mar. (63) . . . | 4 Wed. . . | 39-6776 | 3785 |
| 21 Mar. (81) . . . | 2 Mon. . . | 4 27 45 | 22 Feb. (53) . . . | 2 Mon. . . | 254-0825 | 3786 |
| 21 Mar. (80) . . . | 3 Tues. . . | 10 39 54 | 12 Mar. (71) . . . | 1 Sun. . . | 238-7149 | 3787 |
| 21 Mar. (80) . . . | 4 Wed. . . | 16 52 3 | 1 Mar. (60) . . . | 5 Thurs. . . | 164-4377 | 3788 |
| 21 Mar. (80) . . . | 5 Thurs. . . | 23 4 12 | 20 Mar. (79) . . . | 4 Wed. . . | 199-1200 | 3789 |
| 21 Mar. (81) . . . | 0 Sat. . . | 5 16 21 | 8 Mar. (68) . . . | 1 Sun. . . | 74-8430 | 3790 |
| 21 Mar. (80) . . . | 1 Sun. . . | 11 28 30 | 26 Feb. (57) . . . | 6 Fri. . . | 289-1978 | 3791 |
| 21 Mar. (80) . . . | 2 Mon. . . | 17 40 39 | 17 Mar. (76) . . . | 5 Thurs. . . | 323-8802 | 3792 |
| 21 Mar. (80) . . . | 3 Tues. . . | 23 53 48 | 6 Mar. (65) . . . | 2 Mon. . . | 199-6080 | 3793 |
| 21 Mar. (81) . . . | 5 Thurs. . . | 6 4 57 | 23 Feb. (54) . . . | 6 Fri. . . | 75-3259 | 3794 |
| 21 Mar. (80) . . . | 6 Fri. . . | 12 17 6 | 13 Mar. (72) . . . | 5 Thurs. . . | 110-0082 | 3795 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|---------------------------------|---------|---------|----------------------|---------------------|---|
| Kali. | Saka. | Chaitrādi Vikrama. | Māhādī solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3796 | 617 | 752 | 101 | | 694-95 | 26 Nandana . . . | | 12 Phālguna . |
| 3797 | 618 | 753 | 102 | | 695-96 | 27 Vijaya . . . | | ... |
| 3798 | 619 | 754 | 103 | | *696-97 | 28 Jaya . . . | | ... |
| 3799 | 620 | 755 | 104 | | 697-98 | 29 Manmatha . . . | | 9 Mārgaśīra . |
| 3800 | 621 | 756 | 105 | | 698-99 | 30 Durmukha . . . | | ... |
| 3801 | 622 | 757 | 106 | | 699-700 | 31 Hāmālamba . . . | | ... |
| 3802 | 623 | 758 | 107 | | *700-01 | 32 Vilamba . . . | | 5 Śrāvaṇa . |
| 3803 | 624 | 759 | 108 | | 701-02 | 33 Vikārin . . . | | ... |
| 3804 | 625 | 760 | 109 | | 702-03 | 34 Śārvarin . . . | | ... |
| 3805 | 626 | 761 | 110 | | 703-04 | 35 Plava . . . | | 2 Vaiśākha . |
| 3806 | 627 | 762 | 111 | | *704-05 | 36 Śubhakṛit . . . | | ... |
| 3807 | 628 | 763 | 112 | | 705-06 | 37 Śōbhana . . . | | 10 Pausa . |
| 3808 | 629 | 764 | 113 | | 706-07 | 38 Krōdhin . . . | | ... |
| 3809 | 630 | 765 | 114 | | 707-08 | 39 Viśvāvasu . . . | | ... |
| 3810 | 631 | 766 | 115 | | *708-09 | 40 Parābhava . . . | | 7 Āśvina . |
| 3811 | 632 | 767 | 116 | | 709-10 | 41 Plavaṅga . . . | | ... |
| 3812 | 633 | 768 | 117 | | 710-11 | 42 Kilaka . . . | | ... |
| 3813 | 634 | 769 | 118 | | 711-12 | 43 Saumya . . . | | 4 Ashāḍha . |
| 3814 | 635 | 770 | 119 | | *712-13 | 44 Sādbāraṇa . . . | | ... |
| 3815 | 636 | 771 | 120 | | 713-14 | 45 Virōdbakṛit . . . | | 12 Phālguna . |
| 3816 | 637 | 772 | 121 | | 714-15 | 46 Paridhāvin . . . | | ... |
| 3817 | 638 | 773 | 122 | | 715-16 | 47 Pramādin . . . | | ... |
| 3818 | 639 | 774 | 123 | | *716-17 | 48 Ānanda . . . | | 9 Mārgaśīra . |
| 3819 | 640 | 775 | 124 | | 717-18 | 49 Rākeśasa . . . | | ... |
| 3820 | 641 | 776 | 125 | | 718-19 | 50 Ānala . . . | | ... |

XO—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-sankranti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| 21 Mar. (80) | 0 Sat. | H. M. S.
18 29 15 | 3 Mar. (82) | 3 Tues. | 324-8681 | 3796 |
| 22 Mar. (81) | 2 Mon. | 0 41 24 | 21 Mar. (80) | 1 Sun. | 20-4135 | 3797 |
| 21 Mar. (81) | 3 Tues. | 6 53 33 | 10 Mar. (70) | 6 Fri. | 234-7683 | 3798 |
| 21 Mar. (80) | 4 Wed. | 13 5 42 | 27 Feb. (58) | 3 Tues. | 110-4911 | 3799 |
| 21 Mar. (80) | 5 Thur. | 19 17 51 | 18 Mar. (77) | 2 Mon. | 145-1735 | 3800 |
| 22 Mar. (81) | 0 Sat. | 1 30 0 | 7 Mar. (66) | 6 Fri. | 20-8963 | 3801 |
| 21 Mar. (81) | 1 Sun. | 7 42 9 | 25 Feb. (56) | 4 Wed. | 235-2512 | 3802 |
| 21 Mar. (80) | 2 Mon. | 13 54 16 | 15 Mar. (74) | 3 Tues. | 269-9336 | 3803 |
| 21 Mar. (80) | 3 Tues. | 20 6 27 | 4 Mar. (63) | 0 Sat. | 145-6564 | 3804 |
| 22 Mar. (81) | 5 Thur. | 2 18 36 | 21 Feb. (52) | 4 Wed. | 21-3792 | 3805 |
| 21 Mar. (81) | 6 Fri. | 8 30 45 | 11 Mar. (71) | 3 Tues. | 56-0616 | 3806 |
| 21 Mar. (80) | 0 Sat. | 14 43 54 | 1 Mar. (60) | 1 Sun. | 270-4164 | 3807 |
| 21 Mar. (80) | 1 Sun. | 20 55 3 | 20 Mar. (79) | 0 Sat. | 305-0988 | 3808 |
| 22 Mar. (81) | 3 Tues. | 3 7 12 | 9 Mar. (68) | 4 Wed. | 180-8217 | 3809 |
| 21 Mar. (81) | 4 Wed. | 9 19 21 | 26 Feb. (57) | 1 Sun. | 56-5444 | 3810 |
| 21 Mar. (80) | 5 Thur. | 15 31 30 | 16 Mar. (75) | 0 Sat. | 91-2269 | 3811 |
| 21 Mar. (80) | 6 Fri. | 21 43 39 | 6 Mar. (65) | 5 Thur. | 305-5817 | 3812 |
| 22 Mar. (81) | 1 Sun. | 3 55 48 | 23 Feb. (54) | 2 Mon. | 181-3046 | 3813 |
| 21 Mar. (81) | 2 Mon. | 10 7 57 | 13 Mar. (73) | 1 Sun. | 215-9869 | 3814 |
| 21 Mar. (80) | 3 Tues. | 16 20 6 | 2 Mar. (61) | 5 Thur. | 91-7008 | 3815 |
| 21 Mar. (80) | 4 Wed. | 22 32 15 | 21 Mar. (80) | 4 Wed. | 126-3922 | 3816 |
| 22 Mar. (81) | 6 Fri. | 4 44 24 | 10 Mar. (69) | 1 Sun. | 2-1150 | 3817 |
| 21 Mar. (81) | 0 Sat. | 10 56 33 | 28 Feb. (59) | 6 Fri. | 216-4698 | 3818 |
| 21 Mar. (80) | 1 Sun. | 17 8 42 | 18 Mar. (77) | 5 Thur. | 251-1632 | 3819 |
| 21 Mar. (80) | 2 Mon. | 23 20 51 | Mar. (66) | 2 Mon. | 126-8751 | 3820 |

TABLE

| CONCURRENT YEAR. | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. | | |
|------------------|-------|--------------------|---------------------------------|---------|---------|---|---------------------|-----------------------|
| Kali. | Śaka. | Chaitradī Vikrama. | Māhādī solar year in
Bengal. | Kollam. | A.D. | | JOVIAN SAMVATSAHA. | |
| | | | | | | | Southern
system. | Northern
system. |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3821 | 642 | 777 | 126 | | 719-20 | 51 Pīṅgala | | 5 Śrāvaṇa |
| 3822 | 643 | 778 | 127 | | *720-21 | 52 Kālayakṭa | | ... |
| 3823 | 644 | 779 | 128 | | 721-22 | 53 Siddhārthin | | ... |
| 3824 | 645 | 780 | 129 | | 722-23 | 54 Raudra | | 2 Vaiśākha |
| 3825 | 646 | 781 | 130 | | 723-24 | 55 Dūrmati | | ... |
| 3826 | 647 | 782 | 131 | | *724-25 | 56 Dundubhi | | 10 Pausa |
| 3827 | 648 | 783 | 132 | | 725-26 | 57 Rudhīrōdgārin | | ... |
| 3828 | 649 | 784 | 133 | | 726-27 | 58 Raktāksha | | ... |
| 3829 | 650 | 785 | 134 | | 727-28 | 59 Krōdhana | | 7 Āśvina |
| 3830 | 651 | 786 | 135 | | *728-29 | 60 Kahaya | | ... |
| 3831 | 652 | 787 | 136 | | 729-30 | 1 Prabhava | | ... |
| 3832 | 653 | 788 | 137 | | 730-31 | 2 Vibhava | | 3 Jyēṣṭha |
| 3833 | 654 | 789 | 138 | | 731-32 | 3 Śukla | | ... |
| 3834 | 655 | 790 | 139 | | *732-33 | 4 Pramōda | | 12 Phālguna |
| 3835 | 656 | 791 | 140 | | 733-34 | 5 Prajāpati† | | ... |
| 3836 | 657 | 792 | 141 | | 734-35 | 7 Śrīmukha | | ... |
| 3837 | 658 | 793 | 142 | | 735-36 | 8 Bhāva | | 8 Kārttika |
| 3838 | 659 | 794 | 143 | | *736-37 | 9 Yuvan | | ... |
| 3839 | 660 | 795 | 144 | | 737-38 | 10 Dhātṛi | | ... |
| 3840 | 661 | 796 | 145 | | 738-39 | 11 Isvara | | 5 Śrāvaṇa |
| 3841 | 662 | 797 | 146 | | 739-40 | 12 Bahudhānya | | ... |
| 3842 | 663 | 798 | 147 | | *740-41 | 13 Pramāthin | | ... |
| 3843 | 664 | 799 | 148 | | 741-42 | 14 Vikrama | | 1 Chaitra |
| 3844 | 665 | 800 | 149 | | 742-43 | 15 Vṛisha | | ... |
| 3845 | 666 | 801 | 150 | | 743-44 | 16 Chitrabhānu | | 10 Pausa |

† No. 6 Aṅgīras was suppressed according to the mean system. By the *Brahma-Siddhānta* 'true' system K.Y. 3836, A.D. 734-735, was called Aṅgīras, 7 Śrīmukha being suppressed. K.Y. 3837, A.D. 735-36, was 8 Bhāva by both systems.

KC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-sankrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>titih</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 22 Mar. (81) . . . | 4 Wed. . . | 5 33 0 | 24 Feb. (55) . . . | 6 Fri. . . | 2-5979 | 3821 |
| 21 Mar. (81) . . . | 5 Thur. . . | 11 45 9 | 14 Mar. (74) . . . | 5 Thur. . . | 37-2803 | 3822 |
| 21 Mar. (80) . . . | 6 Fri. . . | 17 57 18 | 4 Mar. (83) . . . | 3 Tues. . . | 251-6352 | 3823 |
| 22 Mar. (81) . . . | 1 Sun. . . | 0 9 27 | 21 Feb. (52) . . . | 0 Sat. . . | 127-3579 | 3824 |
| 22 Mar. (81) . . . | 2 Mon. . . | 6 21 36 | 12 Mar. (71) . . . | 6 Fri. . . | 162-0408 | 3825 |
| 21 Mar. (81) . . . | 3 Tues. . . | 12 33 45 | 29 Feb. (60) . . . | 3 Tues. . . | 37-7632 | 3826 |
| 21 Mar. (80) . . . | 4 Wed. . . | 18 45 54 | 19 Mar. (78) . . . | 2 Mon. . . | 72-4457 | 3827 |
| 22 Mar. (81) . . . | 6 Fri. . . | 0 58 8 | 9 Mar. (68) . . . | 0 Sat. . . | 286-8004 | 3828 |
| 22 Mar. (81) . . . | 0 Sat. . . | 7 10 12 | 26 Feb. (57) . . . | 4 Wed. . . | 162-5283 | 3829 |
| 21 Mar. (81) . . . | 1 Sun. . . | 13 22 21 | 16 Mar. (76) . . . | 3 Tues. . . | 197-2057 | 3830 |
| 21 Mar. (80) . . . | 2 Mon. . . | 19 34 30 | 5 Mar. (64) . . . | 0 Sat. . . | 72-9284 | 3831 |
| 22 Mar. (81) . . . | 4 Wed. . . | 1 46 39 | 23 Feb. (54) . . . | 5 Thur. . . | 287-2833 | 3832 |
| 22 Mar. (81) . . . | 5 Thur. . . | 7 58 48 | 14 Mar. (73) . . . | 4 Wed. . . | 321-9657 | 3833 |
| 21 Mar. (81) . . . | 6 Fri. . . | 14 10 57 | 2 Mar. (62) . . . | 1 Sun. . . | 197-6886 | 3834 |
| 21 Mar. (80) . . . | 0 Sat. . . | 20 23 6 | 21 Mar. (80) . . . | 0 Sat. . . | 232-3709 | 3835 |
| 22 Mar. (81) . . . | 2 Mon. . . | 2 35 15 | 10 Mar. (69) . . . | 4 Wed. . . | 108-0938 | 3836 |
| 22 Mar. (81) . . . | 3 Tues. . . | 8 47 24 | 28 Feb. (59) . . . | 2 Mon. . . | 322-4486 | 3837 |
| 21 Mar. (81) . . . | 4 Wed. . . | 14 59 33 | 17 Mar. (77) . . . | 0 Sat. . . | 18-4990 | 3838 |
| 21 Mar. (80) . . . | 5 Thur. . . | 21 11 42 | 7 Mar. (66) . . . | 5 Thur. . . | 232-8538 | 3839 |
| 22 Mar. (81) . . . | 0 Sat. . . | 3 23 51 | 24 Feb. (55) . . . | 2 Mon. . . | 108-5767 | 3840 |
| 22 Mar. (81) . . . | 1 Sun. . . | 9 36 0 | 15 Mar. (74) . . . | 1 Sun. . . | 143-2591 | 3841 |
| 21 Mar. (81) . . . | 2 Mon. . . | 15 48 9 | 3 Mar. (63) . . . | 5 Thur. . . | 18-9819 | 3842 |
| 21 Mar. (80) . . . | 3 Tues. . . | 22 0 18 | 21 Feb. (52) . . . | 3 Tues. . . | 233-3367 | 3843 |
| 22 Mar. (81) . . . | 5 Thur. . . | 4 12 27 | 12 Mar. (71) . . . | 2 Mon. . . | 268-0191 | 3844 |
| 22 Mar. (81) . . . | 6 Fri. . . | 10 24 36 | 1 Mar. (60) . . . | 6 Fri. . . | 143-7420 | 3845 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3846 | 667 | 802 | 151 | | *744-45 | 17 Subhānu . . . | | ... |
| 3847 | 668 | 803 | 152 | | 745-46 | 18 Tāraṇa . . . | | ... |
| 3848 | 669 | 804 | 153 | | 746-47 | 19 Pārthiva . . . | | 6 Bhādrapada . |
| 3849 | 670 | 805 | 154 | | 747-48 | 20 Vyaya . . . | | ... |
| 3850 | 671 | 806 | 155 | | *748-49 | 21 Sarvajit . . . | | ... |
| 3851 | 672 | 807 | 156 | | 749-50 | 22 Sarvadhārin . . . | | 3 Jyēṣṭha . |
| 3852 | 673 | 808 | 157 | | 750-51 | 23 Virōdhin . . . | | ... |
| 3853 | 674 | 809 | 158 | | 751-52 | 24 Vikṛita . . . | | 12 Phālguna . |
| 3854 | 675 | 810 | 159 | | *752-53 | 25 Khara . . . | | ... |
| 3855 | 676 | 811 | 160 | | 753-54 | 26 Nandana . . . | | ... |
| 3856 | 677 | 812 | 161 | | 754-55 | 27 Vijaya . . . | | 8 Kārttika . |
| 3857 | 678 | 813 | 162 | | 755-56 | 28 Jaya . . . | | ... |
| 3858 | 679 | 814 | 163 | | *756-57 | 29 Manmatha . . . | | ... |
| 3859 | 680 | 815 | 164 | | 757-58 | 30 Darmukha . . . | | 5 Śrāvaṇa . |
| 3860 | 681 | 816 | 165 | | 758-59 | 31 Hēmalamba . . . | | ... |
| 3861 | 682 | 817 | 166 | | 759-60 | 32 Villamba . . . | | ... |
| 3862 | 683 | 818 | 167 | | *760-61 | 33 Vikārin . . . | | 1 Chaitra . |
| 3863 | 684 | 819 | 168 | | 761-62 | 34 Śārvarin . . . | | ... |
| 3864 | 685 | 820 | 169 | | 762-63 | 35 Plava . . . | | 10 Pausa . |
| 3865 | 686 | 821 | 170 | | 763-64 | 36 Subhakṛit . . . | | ... |
| 3866 | 687 | 822 | 171 | | *764-65 | 37 Śōbhana . . . | | ... |
| 3867 | 688 | 823 | 172 | | 765-66 | 38 Krōdhin . . . | | 6 Bhādrapada . |
| 3868 | 689 | 824 | 173 | | 766-67 | 39 Viśvāvasu . . . | | ... |
| 3869 | 690 | 825 | 174 | | 767-68 | 40 Parābhava . . . | | ... |
| 3870 | 691 | 826 | 175 | | *768-69 | 41 Plavaṅga . . . | | 3 Jyēṣṭha . |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|------------------------------|---|-----------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēṣa-saṅkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 21 Mar. (81) | 0 Sat. | 16 36 45 | 19 Mar. (79) | 5 Thur. | 178-4243 | 3846 |
| 21 Mar. (80) | 1 Sun. | 22 48 54 | 8 Mar. (67) | 2 Mon. | 54-1472 | 3847 |
| 22 Mar. (81) | 3 Tues. | 5 1 3 | 26 Feb. (57) | 0 Sat. | 268-5021 | 3848 |
| 22 Mar. (81) | 4 Wed. | 11 13 12 | 17 Mar. (76) | 6 Fri. | 303-1844, | 3849 |
| 21 Mar. (81) | 5 Thur. | 17 25 21 | 5 Mar. (65) | 3 Tues. | 178-9072 | 3850 |
| 21 Mar. (80) | 6 Fri. | 23 37 30 | 22 Feb. (53) | 0 Sat. | 54-6301 | 3851 |
| 22 Mar. (81) | 1 Sun. | 5 49 39 | 13 Mar. (72) | 6 Fri. | 89-3125 | 3852 |
| 22 Mar. (81) | 2 Mon. | 12 1 48 | 3 Mar. (62) | 4 Wed. | 303-6673 | 3853 |
| 21 Mar. (81) | 3 Tues. | 18 13 57 | 20 Mar. (80) | 2 Mon. | 9999-7177§ | 3854 |
| 22 Mar. (81) | 5 Thur. | 0 26 6 | 10 Mar. (69) | 0 Sat. | 214-0726 | 3855 |
| 22 Mar. (81) | 6 Fri. | 6 38 15 | 27 Feb. (58) | 4 Wed. | 89-7953 | 3856 |
| 22 Mar. (81) | 0 Sat. | 12 50 24 | 18 Mar. (77) | 3 Tues. | 124-4778 | 3857 |
| 21 Mar. (81) | 1 Sun. | 19 2 33 | 6 Mar. (66) | 0 Sat. | 0-2006 | 3858 |
| 22 Mar. (81) | 3 Tues. | 1 14 42 | 24 Feb. (55) | 5 Thur. | 214-5555 | 3859 |
| 22 Mar. (81) | 4 Wed. | 7 26 51 | 15 Mar. (74) | 4 Wed. | 249-2378 | 3860 |
| 22 Mar. (81) | 5 Thur. | 13 39 0 | 4 Mar. (63) | 1 Sun. | 124-9607 | 3861 |
| 21 Mar. (81) | 6 Fri. | 19 51 9 | 21 Feb. (52) | 5 Thur. | 0-6835 | 3862 |
| 22 Mar. (81) | 1 Sun. | 2 3 18 | 11 Mar. (70) | 4 Wed. | 35-3658 | 3863 |
| 22 Mar. (81) | 2 Mon. | 8 15 27 | 1 Mar. (60) | 2 Mon. | 249-7207 | 3864 |
| 22 Mar. (81) * | 3 Tues. | 14 27 36 | 20 Mar. (79) | 1 Sun. | 284-4031 | 3865 |
| 21 Mar. (81) | 4 Wed. | 20 39 45 | 8 Mar. (68) | 5 Thur. | 160-1261 | 3866 |
| 22 Mar. (81) | 6 Fri. | 2 51 54 | 25 Feb. (56) | 2 Mon. | 35-8488 | 3867 |
| 22 Mar. (81) | 0 Sat. | 9 4 3 | 16 Mar. (75) | 1 Sun. | 70-5312 | 3868 |
| 22 Mar. (81) | 1 Sun. | 15 16 12 | 6 Mar. (65) | 6 Fri. | 284-8860 | 3869 |
| 21 Mar. (81) | 2 Mon. | 21 28 21 | 23 Feb. (54) | 3 Tues. | 160-6088 | 3870 |

§ Chaitra śukla 1 was suppressed.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|------------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3871 | 692 | 827 | 176 | | 769-70 | 42 Kilaka . . . | | ... |
| 3872 | 693 | 828 | 177 | | 770-71 | 43 Saumya . . . | | 11 Māgha . |
| 3873 | 694 | 829 | 178 | | 771-72 | 44 Sādhāraṇa . . . | | ... |
| 3874 | 695 | 830 | 179 | | *772-73 | 45 Virōdhakṛit . . . | | ... |
| 3875 | 696 | 831 | 180 | | 773-74 | 46 Paridhāvin . . . | | 8 Kārttika . |
| 3876 | 697 | 832 | 181 | | 774-75 | 47 Pramādin . . . | | ... |
| 3877 | 698 | 833 | 182 | | 775-76 | 48 Ānanda . . . | | ... |
| 3878 | 699 | 834 | 183 | | *776-77 | 49 Rākshasa . . . | | 4 Āshāḍha . |
| 3879 | 700 | 835 | 184 | | 777-78 | 50 Anala . . . | | ... |
| 3880 | 701 | 836 | 185 | | 778-79 | 51 Piṅgala . . . | | ... |
| 3881 | 702 | 837 | 186 | | 779-80 | 52 Kālayukta . . . | | 1 Chaitra . |
| 3882 | 703 | 838 | 187 | | *780-81 | 53 Siddhārthin . . . | | ... |
| 3883 | 704 | 839 | 188 | | 781-82 | 54 Raudra . . . | | 9 Mārgaśīra . |
| 3884 | 705 | 840 | 189 | | 782-83 | 55 Durmati . . . | | ... |
| 3885 | 706 | 841 | 190 | | 783-84 | 56 Dundubhi . . . | | ... |
| 3886 | 707 | 842 | 191 | | *784-85 | 57 Rudhirōdgārin . . . | | 6 Bhādrapada . |
| 3887 | 708 | 843 | 192 | | 785-86 | 58 Raktāksha . . . | | ... |
| 3888 | 709 | 844 | 193 | | 786-87 | 59 Krōdhana . . . | | ... |
| 3889 | 710 | 845 | 194 | | 787-88 | 60 Kahaya . . . | | 3 Jyēshṭha . |
| 3890 | 711 | 846 | 195 | | *788-89 | 1 Prabhava . . . | | ... |
| 3891 | 712 | 847 | 196 | | 789-90 | 2 Vibhava . . . | | 11 Māgha . |
| 3892 | 713 | 848 | 197 | | 790-91 | 3 Śukla . . . | | ... |
| 3893 | 714 | 849 | 198 | | 791-92 | 4 Pramōda . . . | | ... |
| 3894 | 715 | 850 | 199 | | *792-93 | 5 Prajāpati . . . | | 8 Kārttika . |
| 3895 | 716 | 851 | 200 | | 793-94 | 6 Angiras . . . | | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Māsha-saṁkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 22 Mar. (81) . . . | 4 Wed. . . | 3 40 30 | 13 Mar. (72) . . . | 2 Mon. . . | 195-2912 | 3871 |
| 22 Mar. (81) . . . | 5 Thur. . . | 9 52 39 | 2 Mar. (61) . . . | 6 Fri. . . | 71-0141 | 3872 |
| 22 Mar. (81) . . . | 6 Fri. . . | 16 4 48 | 21 Mar. (80) . . . | 5 Thur. . . | 105-6965 | 3873 |
| 21 Mar. (81) . . . | 0 Sat. . . | 22 16 57 | 10 Mar. (70) . . . | 3 Tues. . . | 320-0518 | 3874 |
| 22 Mar. (81) . . . | 2 Mon. . . | 4 29 6 | 27 Feb. (58) . . . | 0 Sat. . . | 195-7741 | 3875 |
| 22 Mar. (81) . . . | 3 Tues. . . | 10 41 15 | 18 Mar. (77) . . . | 6 Fri. . . | 230-4566 | 3876 |
| 22 Mar. (81) . . . | 4 Wed. . . | 16 53 24 | 7 Mar. (66) . . . | 3 Tues. . . | 106-1793 | 3877 |
| 21 Mar. (81) . . . | 5 Thur. . . | 23 5 33 | 25 Feb. (56) . . . | 1 Sun. . . | 320-5342 | 3878 |
| 22 Mar. (81) . . . | 0 Sat. . . | 5 17 42 | 14 Mar. (73) . . . | 6 Fri. . . | 16-5846 | 3879 |
| 22 Mar. (81) . . . | 1 Sun. . . | 11 29 51 | 4 Mar. (63) . . . | 4 Wed. . . | 230-9395 | 3880 |
| 22 Mar. (81) . . . | 2 Mon. . . | 17 42 0 | 21 Feb. (52) . . . | 1 Sun. . . | 106-6622 | 3881 |
| 21 Mar. (81) . . . | 3 Tues. . . | 23 54 9 | 11 Mar. (71) . . . | 0 Sat. . . | 141-3446 | 3882 |
| 22 Mar. (81) . . . | 5 Thur. . . | 6 6 18 | 28 Feb. (59) . . . | 4 Wed. . . | 17-0675 | 3883 |
| 22 Mar. (81) . . . | 6 Fri. . . | 12 18 27 | 19 Mar. (78) . . . | 3 Tues. . . | 51-7499 | 3884 |
| 22 Mar. (81) . . . | 0 Sat. . . | 18 30 36 | 9 Mar. (68) . . . | 1 Sun. . . | 266-1047 | 3885 |
| 22 Mar. (82) . . . | 2 Mon. . . | 0 42 45 | 26 Feb. (57) . . . | 5 Thur. . . | 141-8276 | 3886 |
| 22 Mar. (81) . . . | 3 Tues. . . | 6 54 54 | 16 Mar. (75) . . . | 4 Wed. . . | 176-5100 | 3887 |
| 22 Mar. (81) . . . | 4 Wed. . . | 13 7 3 | 5 Mar. (64) . . . | 1 Sun. . . | 52-2327 | 3888 |
| 22 Mar. (81) . . . | 5 Thur. . . | 19 19 12 | 23 Feb. (54) . . . | 6 Fri. . . | 266-5876 | 3889 |
| 22 Mar. (82) . . . | 0 Sat. . . | 1 31 21 | 13 Mar. (73) . . . | 5 Thur. . . | 301-2700 | 3890 |
| 22 Mar. (81) . . . | 1 Sun. . . | 7 43 30 | 2 Mar. (61) . . . | 2 Mon. . . | 176-9929 | 3891 |
| 22 Mar. (81) . . . | 2 Mon. . . | 18 55 39 | 21 Mar. (80) . . . | 1 Sun. . . | 211-6752 | 3892 |
| 22 Mar. (81) . . . | 3 Tues. . . | 20 7 48 | 10 Mar. (69) . . . | 5 Thur. . . | 87-3981 | 3893 |
| 22 Mar. (82) . . . | 5 Thur. . . | 2 19 57 | 28 Feb. (59) . . . | 3 Tues. . . | 301-7530 | 3894 |
| 22 Mar. (81) . . . | 6 Fri. . . | 8 32 6 | 17 Mar. (76) . . . | 1 Sun. . . | 9997-8033 § | 3895 |

§ Chaitra Śukla 1 was suppressed.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3896 | 717 | 852 | 201 | | 794-95 | 7 Śrīmukha . . . | | ... |
| 3897 | 718 | 853 | 202 | | 795-96 | 8 Bhāva . . . | | 4 Āshāḍha . |
| 3898 | 719 | 854 | 203 | | *796-97 | 9 Yavan . . . | | ... |
| 3899 | 720 | 855 | 204 | | 797-98 | 10 Dhātṛi . . . | | ... |
| 3900 | 721 | 856 | 205 | | 798-99 | 11 Isvara . . . | | 1 Chaitra . |
| 3901 | 722 | 857 | 206 | | 799-800 | 12 Bahudhānya . . . | | ... |
| 3902 | 723 | 858 | 207 | | *800-01 | 13 Pramāthin . . . | | 9 Mārgaśīra . |
| 3903 | 724 | 859 | 208 | | 801-02 | 14 Vikrama . . . | | ... |
| 3904 | 725 | 860 | 209 | | 802-03 | 15 Vṛisha . . . | | ... |
| 3905 | 726 | 861 | 210 | | 803-04 | 16 Chitrabhānu . . . | | 6 Bhādrapada . |
| 3906 | 727 | 862 | 211 | | *804-05 | 17 Subhānu . . . | | ... |
| 3907 | 728 | 863 | 212 | | 805-06 | 18 Tāraṇa . . . | | ... |
| 3908 | 729 | 864 | 213 | | 806-07 | 19 Pārthiva . . . | | 2 Vaiśākha . |
| 3909 | 730 | 865 | 214 | | 807-08 | 20 Vyaya . . . | | ... |
| 3910 | 731 | 866 | 215 | | *808-09 | 21 Sarvajit . . . | | 11 Māgha . |
| 3911 | 732 | 867 | 216 | | 809-10 | 22 Sarvadhārin . . . | | ... |
| 3912 | 733 | 868 | 217 | | 810-11 | 23 Virōdhin . . . | | ... |
| 3913 | 734 | 869 | 218 | | 811-12 | 24 Vikṛita . . . | | 7 Āśvina . |
| 3914 | 735 | 870 | 219 | | *812-13 | 25 Khara . . . | | ... |
| 3915 | 736 | 871 | 220 | | 813-14 | 26 Nandana . . . | | ... |
| 3916 | 737 | 872 | 221 | | 814-15 | 27 Vijaya . . . | | 4 Āshāḍha . |
| 3917 | 738 | 873 | 222 | | 815-16 | 28 Jaya . . . | | ... |
| 3918 | 739 | 874 | 223 | | *816-17 | 29 Manmatha . . . | | 12 Phālguna . |
| 3919 | 740 | 875 | 224 | | 817-18 | 30 Durmukha . . . | | ... |
| 3920 | 741 | 876 | 225 | | 818-19 | 31 Hēmalamba† . . . | | ... |

† 32 Vilamba was suppressed by mean reckoning. By *Brahma-Siddhānta* "true" reckoning the year K. Y. 3921, A.D. 819-20, was 32 "Vilamba," and 33 Vikārin was suppressed.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---------------------------------------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mōsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 22 Mar. (81) . . . | 0 Sat. . . | 14 44 15 | 7 Mar. (66) . . . | 6 Fri. . . | 212-1581 | 3896 |
| 22 Mar. (81) . . . | 1 Sun. . . | 20 56 24 | 24 Feb. (55) . . . | 3 Tues. . . | 87-8810 | 3897 |
| 22 Mar. (82) . . . | 3 Tues. . . | 3 8 33 | 14 Mar. (74) . . . | 2 Mon. . . | 122-5633 | 3898 |
| 22 Mar. (81) . . . | 4 Wed. . . | 9 20 42 | 3 Mar. (62) . . . | 6 Fri. . . | 9998-2862§ | 3899 |
| 22 Mar. (81) . . . | 5 Thur. . . | 15 32 51 | 21 Feb. (52) . . . | 4 Wed. . . | 212-6410 | 3900 |
| 22 Mar. (81) . . . | 6 Fri. . . | 21 45 0 | 12 Mar. (71) . . . | 3 Tues. . . | 247-3234 | 3901 |
| 22 Mar. (82) . . . | 1 Sun. . . | 3 57 9 | 29 Feb. (60) . . . | 0 Sat. . . | 123-0463 | 3902 |
| 22 Mar. (81) . . . | 2 Mon. . . | 10 9 18 | 19 Mar. (78) . . . | 6 Fri. . . | 157-7287 | 3903 |
| 22 Mar. (81) . . . | 3 Tues. . . | 16 21 27 | 8 Mar. (67) . . . | 3 Tues. . . | 33-4515 | 3904 |
| 22 Mar. (81) . . . | 4 Wed. . . | 22 33 36 | 26 Feb. (57) . . . | 1 Sun. . . | 247-8064 | 3905 |
| 22 Mar. (82) . . . | 6 Fri. . . | 4 45 45 | 16 Mar. (76) . . . | 0 Sat. . . | 282-4888 | 3906 |
| 22 Mar. (81) . . . | 0 Sat. . . | 10 57 54 | 5 Mar. (64) . . . | 4 Wed. . . | 158-2115 | 3907 |
| 22 Mar. (81) . . . | 1 Sun. . . | 17 10 3 | 22 Feb. (53) . . . | 1 Sun. . . | 33-9344 | 3908 |
| 22 Mar. (81) . . . | 2 Mon. . . | 23 22 12 | 13 Mar. (72) . . . | 0 Sat. . . | 68-6168 | 3909 |
| 22 Mar. (82) . . . | 4 Wed. . . | 5 34 21 | 2 Mar. (62) . . . | 5 Thur. . . | 282-9716 | 3910 |
| 22 Mar. (81) . . . | 5 Thur. . . | 11 46 30 | 21 Mar. (80) . . . | 4 Wed. . . | 317-6540 | 3911 |
| 22 Mar. (81) . . . | 6 Fri. . . | 17 58 39 | 10 Mar. (69) . . . | 1 Sun. . . | 193-3769 | 3912 |
| 23 Mar. (82) . . . | 1 Sun. . . | 0 10 48 | 27 Feb. (58) . . . | 5 Thur. . . | 69-0998 | 3913 |
| 22 Mar. (82) . . . | 2 Mon. . . | 6 22 57 | 17 Mar. (77) . . . | 4 Wed. . . | 103-7821 | 3914 |
| 22 Mar. (81) . . . | 3 Tues. . . | 12 35 6 | 7 Mar. (66) . . . | 2 Mon. . . | 318-1369 | 3915 |
| 22 Mar. (81) . . . | 4 Wed. . . | 18 47 15 | 24 Feb. (55) . . . | 6 Fri. . . | 193-8598 | 3916 |
| 23 Mar. (82) . . . | 6 Fri. . . | 0 59 24 | 15 Mar. (74) . . . | 5 Thur. . . | 228-5421 | 3917 |
| 23 Mar. (82) . . . | 0 Sat. . . | 7 11 33 | 3 Mar. (63) . . . | 2 Mon. . . | 104-2650 | 3918 |
| 22 Mar. (81) . . . | 1 Sun. . . | 13 23 42 | 22 Mar. (81) . . . | 1 Sun. . . | 138-9474 | 3919 |
| 23 Mar. (81) . . . | 2 Mon. . . | 19 35 51 | 11 Mar. (70) . . . | 5 Thur. . . | 14-6703 | 3920 |

§ Chaitra *śukla* 1 was suppressed.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|---------------------------------|---------|---------|-------------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēṣādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3021 | 742 | 877 | 226 | | 819-20 | 33 <i>Vikārin</i> | . | 9 Mārgaśīra |
| 3022 | 743 | 878 | 227 | | *820-21 | 34 <i>Śārvarin</i> | . | ... |
| 3023 | 744 | 879 | 228 | | 821-22 | 35 <i>Plava</i> | . | ... |
| 3024 | 745 | 880 | 229 | | 822-23 | 36 <i>Śubhakṛit</i> | . | 6 Bhādrapada† |
| 3025 | 746 | 881 | 230 | | 823-24 | 37 <i>Śōbhana</i> | . | ... |
| 3026 | 747 | 882 | 231 | | *824-25 | 38 <i>Krōdhin</i> | . | ... |
| 3027 | 748 | 883 | 232 | 0-1 | 825-26 | 39 <i>Viśvāvasu</i> | . | 2 Vaiśākha |
| 3028 | 749 | 884 | 233 | 1-2 | 826-27 | 40 <i>Parābhava</i> | . | ... |
| 3029 | 750 | 885 | 234 | 2-3 | 827-28 | 41 <i>Plavaṅga</i> | . | 11 Māgha |
| 3030 | 751 | 886 | 235 | 3-4 | *828-29 | 42 <i>Kilaka</i> | . | ... |
| 3031 | 752 | 887 | 236 | 4-5 | 829-30 | 43 <i>Saumya</i> | . | ... |
| 3032 | 753 | 888 | 237 | 5-6 | 830-31 | 44 <i>Sādhāraṇa</i> | . | 7 Āśvina |
| 3033 | 754 | 889 | 238 | 6-7 | 831-32 | 45 <i>Virōdhakṛit</i> | . | ... |
| 3034 | 755 | 890 | 239 | 7-8 | *832-33 | 46 <i>Paridhāvin</i> | . | ... |
| 3035 | 756 | 891 | 240 | 8-9 | 833-34 | 47 <i>Pramādin</i> | . | 4 Āshāḍha |
| 3036 | 757 | 892 | 241 | 9-10 | 834-35 | 48 <i>Ānanda</i> | . | ... |
| 3037 | 758 | 893 | 242 | 10-11 | 835-36 | 49 <i>Rākṣasa</i> | . | 12 Phālguna |
| 3038 | 759 | 894 | 243 | 11-12 | *836-37 | 50 <i>Anala</i> | . | ... |
| 3039 | 760 | 895 | 244 | 12-13 | 837-38 | 51 <i>Pīṅgala</i> | . | ... |
| 3040 | 761 | 896 | 245 | 13-14 | 838-39 | 52 <i>Kālayukta</i> | . | 9 Mārgaśīra |
| 3041 | 762 | 897 | 246 | 14-15 | 839-40 | 53 <i>Siddhārthin</i> | . | ... |
| 3042 | 763 | 898 | 247 | 15-16 | *840-41 | 54 <i>Raudra</i> | . | ... |
| 3043 | 764 | 899 | 248 | 16-17 | 841-42 | 55 <i>Durmati</i> | . | 5 Śrāvṇa |
| 3044 | 765 | 900 | 249 | 17-18 | 842-43 | 56 <i>Dundubhi</i> | . | ... |
| 3045 | 766 | 901 | 250 | 18-19 | 843-44 | 57 <i>Rudhirōdgārin</i> | . | ... |

† See "Remarks," p. 215 above.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-sankrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 23 Mar. (82) . . . | 4 Wed. . . | 1 48 0 | 1 Mar. (60) . . . | 3 Tues. . . | 229-0250 | 3921 |
| 22 Mar. (82) . . . | 5 Thur. . . | 8 0 9 | 19 Mar. (79) . . . | 2 Mon. . . | 263-7074 | 3922 |
| 22 Mar. (81) . . . | 6 Fri. . . | 14 12 18 | 8 Mar. (67) . . . | 6 Fri. . . | 139-4313 | 3923 |
| 22 Mar. (81) . . . | 0 Sat. . . | 20 24 27 | 25 Feb. (56) . . . | 3 Tues. . . | 15-1531 | 3924 |
| 23 Mar. (82) . . . | 2 Mon. . . | 2 36 36 | 16 Mar. (75) . . . | 2 Mon. . . | 49-8355 | 3925 |
| 22 Mar. (82) . . . | 3 Tues. . . | 8 48 45 | 5 Mar. (65) . . . | 0 Sat. . . | 264-1904 | 3926 |
| 22 Mar. (81) . . . | 4 Wed. . . | 15 0 54 | 22 Feb. (53) . . . | 4 Wed. . . | 139-9132 | 3927 |
| 22 Mar. (81) . . . | 5 Thur. . . | 21 13 3 | 13 Mar. (72) . . . | 3 Tues. . . | 174-5955 | 3928 |
| 23 Mar. (82) . . . | 0 Sat. . . | 3 25 12 | 2 Mar. (61) . . . | 0 Sat. . . | 50-3184 | 3929 |
| 22 Mar. (82) . . . | 1 Sun. . . | 9 37 21 | 20 Mar. (80) . . . | 6 Fri. . . | 85-0009 | 3930 |
| 22 Mar. (81) . . . | 2 Mon. . . | 15 49 30 | 10 Mar. (69) . . . | 4 Wed. . . | 299-3556 | 3931 |
| 22 Mar. (81) . . . | 3 Tues. . . | 22 1 39 | 27 Feb. (58) . . . | 1 Sun. . . | 175-0784 | 3932 |
| 23 Mar. (82) . . . | 5 Thur. . . | 4 13 48 | 18 Mar. (77) . . . | 0 Sat. . . | 209-7609 | 3933 |
| 22 Mar. (82) . . . | 6 Fri. . . | 16 25 57 | 6 Mar. (66) . . . | 4 Wed. . . | 85-4837 | 3934 |
| 22 Mar. (81) . . . | 0 Sat. . . | 16 38 6 | 24 Feb. (55) . . . | 2 Mon. . . | 299-8385 | 3935 |
| 22 Mar. (81) . . . | 1 Sun. . . | 22 50 15 | 14 Mar. (73) . . . | 0 Sat. . . | 9995-8889 § | 3936 |
| 23 Mar. (82) . . . | 3 Tues. . . | 5 2 24 | 4 Mar. (63) . . . | 5 Thur. . . | 210-2438 | 3937 |
| 22 Mar. (82) . . . | 4 Wed. . . | 11 14 33 | 22 Mar. (82) . . . | 4 Wed. . . | 244-9262 | 3938 |
| 22 Mar. (81) . . . | 5 Thur. . . | 17 26 42 | 11 Mar. (70) . . . | 1 Sun. . . | 120-6400 | 3939 |
| 22 Mar. (81) . . . | 6 Fri. . . | 23 38 51 | 28 Feb. (59) . . . | 5 Thur. . . | 9996-3718 § | 3940 |
| 23 Mar. (82) . . . | 1 Sun. . . | 5 51 0 | 19 Mar. (78) . . . | 4 Wed. . . | 31-0542 | 3941 |
| 22 Mar. (82) . . . | 2 Mon. . . | 12 3 9 | 8 Mar. (68) . . . | 2 Mon. . . | 245-4000 | 3942 |
| 22 Mar. (81) . . . | 3 Tues. . . | 18 15 18 | 25 Feb. (56) . . . | 6 Fri. . . | 121-1819 | 3943 |
| 23 Mar. (82) . . . | 5 Thur. . . | 0 27 27 | 16 Mar. (75) . . . | 5 Thur. . . | 155-8143 | 3944 |
| 23 Mar. (82) . . . | 6 Fri. . . | 6 39 36 | 5 Mar. (64) . . . | 2 Mon. . . | 31-5372 | 3945 |

§ Chaitra *śukla* 1 was suppressed.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|-----------------------|----------------------------------|---------|---------|----------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi
Vikrama. | Māghādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 3946 | 767 | 902 | 251 | 19-20 | *844-45 | 58 Raktāksha . . . | 2 Vaiśākha . . . | |
| 3947 | 768 | 903 | 252 | 20-21 | 845-46 | 59 Krōdhana . . . | ... | |
| 3948 | 769 | 904 | 253 | 21-22 | 846-47 | 60 Kshaya . . . | 10 Pausa . . . | |
| 3949 | 770 | 905 | 254 | 22-23 | 847-48 | 1 Prabhava . . . | ... | |
| 3950 | 771 | 906 | 255 | 23-24 | *848-49 | 2 Vibhava . . . | ... | |
| 3951 | 772 | 907 | 256 | 24-25 | 849-50 | 3 Śukla . . . | 7 Āśvina . . . | |
| 3952 | 773 | 908 | 257 | 25-26 | 850-51 | 4 Pramōda . . . | ... | |
| 3953 | 774 | 909 | 258 | 26-27 | 851-52 | 5 Prajāpati . . . | ... | |
| 3954 | 775 | 910 | 259 | 27-28 | *852-53 | 6 Āngiras . . . | 3 Jyēṣṭha . . . | |
| 3955 | 776 | 911 | 260 | 28-29 | 853-54 | 7 Śrīmukha . . . | ... | |
| 3956 | 777 | 912 | 261 | 29-30 | 854-55 | 8 Bhāva . . . | 12 Phālguna . . . | |
| 3957 | 778 | 913 | 262 | 30-31 | 855-56 | 9 Yuvan . . . | ... | |
| 3958 | 779 | 914 | 263 | 31-32 | *856-57 | 10 Dhātṛi . . . | ... | |
| 3959 | 780 | 915 | 264 | 32-33 | 857-58 | 11 Īvara . . . | 8 Kārttika . . . | |
| 3960 | 781 | 916 | 265 | 33-34 | 858-59 | 12 Bahudhānya . . . | ... | |
| 3961 | 782 | 917 | 266 | 34-35 | 859-60 | 13 Pramāthin . . . | ... | |
| 3962 | 783 | 918 | 267 | 35-36 | *860-61 | 14 Vikrama . . . | 5 Srāvaṇa . . . | |
| 3963 | 784 | 919 | 268 | 36-37 | 861-62 | 15 Vṛisha . . . | ... | |
| 3964 | 785 | 920 | 269 | 37-38 | 862-63 | 16 Chitrabhānu . . . | ... | |
| 3965 | 786 | 921 | 270 | 38-39 | 863-64 | 17 Subhānu . . . | 2 Vaiśākha . . . | |
| 3966 | 787 | 922 | 271 | 39-40 | *864-65 | 18 Tārana . . . | ... | |
| 3967 | 788 | 923 | 272 | 40-41 | 865-66 | 19 Pārthiva . . . | 10 Pausa . . . | |
| 3968 | 789 | 924 | 273 | 41-42 | 866-67 | 20 Vyaya . . . | ... | |
| 3969 | 790 | 925 | 274 | 42-43 | 867-68 | 21 Sarvajit . . . | ... | |
| 3970 | 791 | 926 | 275 | 43-44 | *868-69 | 22 Sarvadhārin . . . | 7 Āśvina . . . | |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|--------------------------------------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITEA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēśha-saṅkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tī/ā). | |
| 18 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 22 Mar. (82) | 0 Sat. | 12 51 45 | 23 Feb. (54) | 0 Sat. | 245-8919 | 3946 |
| 22 Mar. (81) | 1 Sun. | 19 3 54 | 13 Mar. (76) | 6 Fri. | 280-5743 | 3947 |
| 23 Mar. (82) | 3 Tues. | 1 16 3 | 2 Mar. (61) | 3 Tues. | 156-2972 | 3948 |
| 23 Mar. (82) | 4 Wed. | 7 28 12 | 21 Mar. (80) | 2 Mon. | 190-9796 | 3949 |
| 22 Mar. (82) | 5 Thur. | 13 40 21 | 9 Mar. (69) | 6 Fri. | 66-7024 | 3950 |
| 22 Mar. (81) | 6 Fri. | 19 52 30 | 27 Feb. (58) | 4 Wed. | 281-0572 | 3951 |
| 23 Mar. (82) | 1 Sun. | 2 4 39 | 18 Mar. (77) | 3 Tues. | 315-7397 | 3952 |
| 23 Mar. (82) | 2 Mon. | 8 16 48 | 7 Mar. (66) | 0 Sat. | 191-4624 | 3953 |
| 22 Mar. (82) | 3 Tues. | 14 28 57 | 24 Feb. (55) | 4 Wed. | 67-1853 | 3954 |
| 22 Mar. (81) | 4 Wed. | 20 41 6 | 14 Mar. (73) | 3 Tues. | 101-8677 | 3955 |
| 23 Mar. (82) | 6 Fri. | 2 53 15 | 4 Mar. (63) | 1 Sun. | 316-2225 | 3956 |
| 23 Mar. (82) | 0 Sat. | 9 5 24 | 22 Mar. (81) | 6 Fri. | 12-2729 | 3957 |
| 22 Mar. (82) | 1 Sun. | 15 17 33 | 11 Mar. (71) | 4 Wed. | 226-6278 | 3958 |
| 22 Mar. (81) | 2 Mon. | 21 29 42 | 28 Feb. (59) | 1 Sun. | 102-8506 | 3959 |
| 23 Mar. (82) | 4 Wed. | 3 41 51 | 19 Mar. (78) | 0 Sat. | 137-0329 | 3960 |
| 23 Mar. (82) | 5 Thur. | 9 54 0 | 8 Mar. (67) | 4 Wed. | 12-7558 | 3961 |
| 22 Mar. (82) | 6 Fri. | 16 6 9 | 26 Feb. (57) | 2 Mon. | 227-1107 | 3962 |
| 22 Mar. (81) | 0 Sat. | 22 18 18 | 16 Mar. (75) | 1 Sun. | 261-7930 | 3963 |
| 23 Mar. (82) | 2 Mon. | 4 30 27 | 5 Mar. (64) | 5 Thur. | 137-5159 | 3964 |
| 23 Mar. (82) | 3 Tues. | 10 42 36 | 22 Feb. (53) | 2 Mon. | 13-2387 | 3965 |
| 22 Mar. (82) | 4 Wed. | 16 54 45 | 12 Mar. (72) | 1 Sun. | 47-9211 | 3966 |
| 22 Mar. (81) | 5 Thur. | 23 6 54 | 2 Mar. (61) | 6 Fri. | 262-2759 | 3967 |
| 23 Mar. (82) | 0 Sat. | 5 19 3 | 21 Mar. (80) | 5 Thur. | 296-9584 | 3968 |
| 23 Mar. (82) | 1 Sun. | 11 31 12 | 10 Mar. (69) | 2 Mon. | 172-6812 | 3969 |
| 22 Mar. (82) | 2 Mon. | 17 43 21 | 27 Feb. (58) | 6 Fri. | 48-4039 | 3970 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|----------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3971 | 792 | 927 | 276 | 44-45 | 869-70 | 23 Virōdhin . . . | ... | |
| 3972 | 793 | 928 | 277 | 45-46 | 870-71 | 24 Vikṛita . . . | ... | |
| 3973 | 794 | 929 | 278 | 46-47 | 871-72 | 25 Khara . . . | 8 Jyēshṭha . | |
| 3974 | 795 | 930 | 279 | 47-48 | *872-73 | 26 Nandana . . . | ... | |
| 3975 | 796 | 931 | 280 | 48-49 | 873-74 | 27 Vijaya . . . | 12 Phālguna . | |
| 3976 | 797 | 932 | 281 | 49-50 | 874-75 | 28 Jaya . . . | ... | |
| 3977 | 798 | 933 | 282 | 50-51 | 875-76 | 29 Manmatha . . . | ... | |
| 3978 | 799 | 934 | 283 | 51-52 | *876-77 | 30 Durmukha . . . | 8 Kārttika . | |
| 3979 | 800 | 935 | 284 | 52-53 | 877-78 | 31 Hēmalamba . . . | ... | |
| 3980 | 801 | 936 | 285 | 53-54 | 878-79 | 32 Vilamba . . . | ... | |
| 3981 | 802 | 937 | 286 | 54-55 | 879-80 | 33 Vikārin . . . | 5 Śrāvaṇa . | |
| 3982 | 803 | 938 | 287 | 55-56 | *880-81 | 34 Śarvaṇin . . . | ... | |
| 3983 | 804 | 939 | 288 | 56-57 | 881-82 | 35 Plava . . . | ... | |
| 3984 | 805 | 940 | 289 | 57-58 | 882-83 | 36 Śubhakṛit . . . | 1 Chaitra . | |
| 3985 | 806 | 941 | 290 | 58-59 | 883-84 | 37 Śobhana . . . | ... | |
| 3986 | 807 | 942 | 291 | 59-60 | *884-85 | 38 Krōdhin . . . | 10 Pausa . | |
| 3987 | 808 | 943 | 292 | 60-61 | 885-86 | 39 Viśvāvasu . . . | ... | |
| 3988 | 809 | 944 | 293 | 61-62 | 886-87 | 40 Parābhava . . . | ... | |
| 3989 | 810 | 945 | 294 | 62-63 | 887-88 | 41 Plavaṅga . . . | 6 Bhādrapada . | |
| 3990 | 811 | 946 | 295 | 63-64 | *888-89 | 42 Kilaka . . . | ... | |
| 3991 | 812 | 947 | 296 | 64-65 | 889-90 | 43 Saumya . . . | ... | |
| 3992 | 813 | 948 | 297 | 65-66 | 890-91 | 44 Sūdhārava . . . | 8 Jyēshṭha . | |
| 3993 | 814 | 949 | 298 | 66-67 | 891-92 | 45 Virōdhakṛit . . . | ... | |
| 3994 | 815 | 950 | 299 | 67-68 | *892-93 | 46 Paidhāvin . . . | 11 Māgha . | |
| 3995 | 816 | 951 | 300 | 68-69 | 893-94 | 47 Pramādin . . . | ... | |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|-------------------------------|---|-----------|---------------------------------------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITEA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 22 Mar. (81) | 3 Tues. | 23 55 30 | 17 Mar. (76) | 5 Thur. | 83·0864 | 3971 |
| 23 Mar. (82) | 5 Thur. | 6 7 39 | 7 Mar. (66) | 3 Tues. | 297·4412 | 3972 |
| 23 Mar. (82) | 6 Fri. | 12 19 48 | 24 Feb. (55) | 0 Sat. | 173·1641 | 3973 |
| 22 Mar. (82) | 0 Sat. | 18 31 57 | 14 Mar. (74) | 6 Fri. | 207·8484 | 3974 |
| 23 Mar. (82) | 2 Mon. | 0 44 6 | 3 Mar. (62) | 3 Tues. | 83·5693 | 3975 |
| 23 Mar. (82) | 3 Tues. | 6 56 15 | 22 Mar. (81) | 2 Mon. | 118·2517 | 3976 |
| 23 Mar. (82) | 4 Wed. | 13 8 24 | 12 Mar. (71) | 0 Sat. | 332·6065 | 3977 |
| 22 Mar. (82) | 5 Thur. | 19 20 33 | 29 Feb. (60) | 4 Wed. | 208·3293 | 3978 |
| 23 Mar. (82) | 0 Sat. | 1 32 42 | 19 Mar. (78) | 3 Tues. | 243·0118 | 3979 |
| 23 Mar. (82) | 1 Sun. | 7 44 51 | 8 Mar. (67) | 0 Sat. | 118·7346 | 3980 |
| 23 Mar. (82) | 2 Mon. | 13 57 0 | 26 Feb. (57) | 5 Thurs. | 333·0894 | 3981 |
| 22 Mar. (82) | 3 Tues. | 20 9 9 | 15 Mar. (75) | 3 Tues. | 29·1398 | 3982 |
| 23 Mar. (82) | 5 Thur. | 2 21 18 | 5 Mar. (64) | 1 Sun. | 243·4947 | 3983 |
| 23 Mar. (82) | 6 Fri. | 8 33 27 | 22 Feb. (53) | 5 Thur. | 119·2175 | 3984 |
| 23 Mar. (82) | 0 Sat. | 14 45 36 | 13 Mar. (72) | 4 Wed. | 153·8998 | 3985 |
| 22 Mar. (82) | 1 Sun. | 20 57 45 | 1 Mar. (61) | 1 Sun. | 29·6227 | 3986 |
| 23 Mar. (82) | 3 Tues. | 3 9 54 | 20 Mar. (79) | 0 Sat. | 64·3052 | 3987 |
| 23 Mar. (82) | 4 Wed. | 9 22 3 | 10 Mar. (69) | 5 Thur. | 278·6599 | 3988 |
| 23 Mar. (82) | 5 Thur. | 15 34 12 | 27 Feb. (58) | 2 Mon. | 154·3828 | 3989 |
| 22 Mar. (82) | 6 Fri. | 21 46 21 | 17 Mar. (77) | 1 Sun. | 189·0652 | 3990 |
| 23 Mar. (82) | 1 Sun. | 3 58 30 | 6 Mar. (65) | 5 Thur. | 64·7881 | 3991 |
| 23 Mar. (82) | 2 Mon. | 10 10 39 | 24 Feb. (55) | 3 Tues. | 279·1428 | 3992 |
| 23 Mar. (82) | 3 Tues. | 16 22 48 | 15 Mar. (74) | 2 Mon. | 313·8252 | 3993 |
| 22 Mar. (82) | 4 Wed. | 22 34 57 | 3 Mar. (63) | 6 Fri. | 189·5481 | 3994 |
| 23 Mar. (82) | 6 Fri. | 4 47 6 | 22 Mar. (81) | 5 Thur. | 224·3304 | 3995 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|-----------------------------|-------------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Māghādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 3996 | 817 | 952 | 301 | 69-70 | 894-95 | 48 Ānanda | | ... |
| 3997 | 818 | 953 | 302 | 70-71 | 895-96 | 49 Rākshasa | | 8 Kārttika . |
| 3998 | 819 | 954 | 303 | 71-72 | *896-97 | 50 Anala | | ... |
| 3999 | 820 | 955 | 304 | 72-73 | 897-98 | 51 Piṅgala | | ... |
| 4000 | 821 | 956 | 305 | 73-74 | 898-99 | 52 Kālayukta | | 5 Śrāvaṇa . |
| 4001 | 822 | 957 | 306 | 74-75 | 899-900 | 53 Siddhārthin | | ... |
| 4002 | 823 | 958 | 307 | 75-76 | *900-01 | 54 Raudra | | ... |
| 4003 | 824 | 959 | 308 | 76-77 | 901-02 | 55 Darmati | | 1 Chaitra . |
| 4004 | 825 | 960 | 309 | 77-78 | 902-03 | 56 Dundubhi | | ... |
| 4005 | 826 | 961 | 310 | 78-79 | 903-04 | 57 Rudhirōlgārīn† | | 10 Pausa . |
| 4006 | 827 | 962 | 311 | 79-80 | *904-05 | 58 Raktāksha | 59 Krōdhana | ... |
| 4007 | 828 | 963 | 312 | 80-81 | 905-06 | 59 Krōdhana | 60 Kshaya | ... |
| 4008 | 829 | 964 | 313 | 81-82 | 906-07 | 60 Kshaya | 1 Prabhava | 6 Bhādrapada . |
| 4009 | 830 | 965 | 314 | 82-83 | 907-08 | 1 Prabhava | 2 Vibhava | ... |
| 4010 | 831 | 966 | 315 | 83-84 | *908-09 | 2 Vibhava | 3 Śukla | ... |
| 4011 | 832 | 967 | 316 | 84-85 | 909-10 | 3 Śukla | 4 Pramōda | 3 Jyēṣṭha . |
| 4012 | 833 | 968 | 317 | 85-86 | 910-11 | 4 Pramōda | 5 Prajāpati | ... |
| 4013 | 834 | 969 | 318 | 86-87 | 911-12 | 5 Prajāpati | 6 Aṅgiras | 11 Māgha . |
| 4014 | 835 | 970 | 319 | 87-88 | *912-13 | 6 Aṅgiras | 7 Śrīmukha | ... |
| 4015 | 836 | 971 | 320 | 88-89 | 913-14 | 7 Śrīmukha | 8 Bhāva | ... |
| 4016 | 837 | 972 | 321 | 89-90 | 914-15 | 8 Bhāva | 9 Yuvan | 8 Kārttika . |
| 4017 | 838 | 973 | 322 | 90-91 | 915-16 | 9 Yuvan | 10 Dhātṛi | ... |
| 4018 | 839 | 974 | 323 | 91-92 | *916-17 | 10 Dhātṛi | 11 Iśvara | ... |
| 4019 | 840 | 975 | 324 | 92-93 | 917-18 | 11 Iśvara | 12 Bahudhānya | 4 Ashāḍha . |
| 4020 | 841 | 976 | 325 | 93-94 | 918-19 | 12 Bahudhānya | 13 Pramāthīn | ... |

† 58 Raktāksha was suppressed in the north. By southern reckoning there was no suppression, and there has been none since. By *Brahma-Siddhanta* "true" reckoning K.Y. 4006, A.D. 904-05, was 58 Raktāksha, 59 Krōdhana being suppressed in the north.

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| Royal Society of Antiquaries, Edinburgh. | North China Branch of the Royal Asiatic Society, Shanghai. |
| Royal Society of Antiquaries, Ireland, 17, Highfield Road, Rathgar, Dublin. | Smithsonian Institution, Washington, D. C., U. S. A. |
| Institut de France, Paris. | Harvard University Library, Cambridge, Boston, Massachusetts, U. S. A. |
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| Government Central Museum, ditto. | Burdwan Raj Public Library, Burdwan. |
| University Library, ditto. | Bangiya Sahitya Parishad Sabha, Calcutta. |
| Presidency College Library, ditto. | Chaitanya Library, 4-1, Beadon Street, Calcutta. |
| Christian College Library, ditto. | Mahabodhi Society, Baniapooker Lane, Calcutta. |
| Literary and Scientific Society, ditto. | Scottish Churches College Library, Calcutta. |
| Secretariat Library, Bombay. | Hooghly College Library, Chinsurah. |
| University Library, ditto. | Chittagong College Library, Chittagong. |
| Anandashram Sanskrit Series, Poona City. | Rajshahi College Library, Rajshahi. |
| Bombay Branch of the Royal Asiatic Society, Bombay. | Provincial Library, Dacca. |
| Secretariat Library, Calcutta. | Varendra Research Society, Rajshahi. |
| Indian Museum, ditto. | Secretariat Library, Bihar and Orissa. |
| University Library, ditto. | Patna College Library, Bankipore. |
| Sanskrit College Library, Calcutta. | Agra College Library, Agra. |
| Presidency College Library, ditto. | Muir Central College Library, Allahabad. |
| Asiatic Society of Bengal, ditto. | Panini Office, Allahabad. |
| Secretariat Library, Allahabad. | Central Hindu College Library, Benares. |
| University Library, ditto. | Queen's College Library, Benares. |
| Provincial Museum, Lucknow. | Canning College Library, Lucknow. |
| Sanskrit College Library, Benares. | Archæological Museum Library, Muttra. |
| Secretariat Library, Lahore. | Forman Christian College Library, Lahore. |
| Museum Library, ditto. | Government College Library, Lahore. |
| University Library, ditto. | Punjab Historical Society, Lahore. |
| Oriental College Library, Lahore. | Punjab Public Library, Lahore. |
| Secretariat Library, Nagpur. | Museum Library, Delhi. |
| Museum Library, ditto. | Public Library, Delhi. |
| Secretariat Library, Rangoon. | Peshawar Museum Library, Peshawar. |
| Oriental and Mixed Library, Bangalore. | Secretariat Library, Peshawar. |
| College Library, Dacca. | Public Library, Mandalay. |
| Itihasa Samsothak Mandal, Poona. | Bernard Free Library, Rangoon. |
| Museum Library, Lucknow. | Rangoon College Library, Rangoon. |
| The Mythic Society, Bangalore. | Government Library, Shillong. |
| Department of Education Library, Delhi. | Secretariat Library, Shillong. |
| Government College Library, Kambakonam. | Government College Library, Jubbulpore. |
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| The Connemara Public Library, Madras. | Rajkumar College Library, Indore. |
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| Government College Library, Rajahmundry. | Library of the Resident at Baroda. |
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| Sanskrit College Library, Tiruvadi (Tanjore). | Gwalior Darbar Library, Gwalior. |
| Maharajah's College Library, Vizayanagaram. | Bhuri Singh Museum Library, Chumba. |
| Elphinstone College Library, Bombay. | Indian Antiquary, c/o the British India Press, Mazagaon, Bombay. |
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XC—contd.

| COMMENCEMENT OF THE | | | | | | | Kali. |
|---------------------|-------------|-------------------------------|---|-------------|--|------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 23 Mar. (82) . . . | 0 Sat. . . | 10 59 15 | 11 Mar. (70) . . . | 2 Mon. . . | 99-9533 | 3996 | |
| 23 Mar. (82) . . . | 1 Sun. . . | 17 11 24 | 1 Mar. (60) . . . | 0 Sat. . . | 314-3081 | 3997 | |
| 22 Mar. (82) . . . | 2 Mon. . . | 23 23 33 | 18 Mar. (78) . . . | 5 Thur. . . | 10-3584 | 3998 | |
| 23 Mar. (82) . . . | 4 Wed. . . | 5 35 42 | 8 Mar. (67) . . . | 3 Tues. . . | 224-7133 | 3999 | |
| 23 Mar. (82) . . . | 5 Thur. . . | 11 47 51 | 25 Feb. (56) . . . | 0 Sat. . . | 100-4362 | 4000 | |
| 23 Mar. (82) . . . | 6 Fri. . . | 18 0 0 | 16 Mar. (75) . . . | 6 Fri. . . | 135-1186 | 4001 | |
| 23 Mar. (83) . . . | 1 Sun. . . | 0 12 9 | 4 Mar. (64) . . . | 3 Tues. . . | 10-8415 | 4002 | |
| 23 Mar. (82) . . . | 2 Mon. . . | 6 24 18 | 22 Feb. (53) . . . | 1 Sun. . . | 225-4963 | 4003 | |
| 23 Mar. (82) . . . | 3 Tues. . . | 12 36 27 | 13 Mar. (72) . . . | 0 Sat. . . | 259-8786 | 4004 | |
| 23 Mar. (82) . . . | 4 Wed. . . | 18 48 36 | 2 Mar. (61) . . . | 4 Wed. . . | 135-6015 | 4005 | |
| 23 Mar. (83) . . . | 6 Fri. . . | 0 45 | 20 Mar. (80) . . . | 3 Tues. . . | 170-2839 | 4006 | |
| 23 Mar. (82) . . . | 0 Sat. . . | 7 12 54 | 9 Mar. (68) . . . | 0 Sat. . . | 46-0067 | 4007 | |
| 23 Mar. (82) . . . | 1 Sun. . . | 13 25 3 | 27 Feb. (58) . . . | 5 Thur. . . | 260-3616 | 4008 | |
| 23 Mar. (82) . . . | 2 Mon. . . | 19 37 12 | 18 Mar. (77) . . . | 4 Wed. . . | 295-0440 | 4009 | |
| 23 Mar. (83) . . . | 4 Wed. . . | 1 49 21 | 6 Mar. (66) . . . | 1 Sun. . . | 170-7668 | 4010 | |
| 23 Mar. (82) . . . | 5 Thur. . . | 8 1 30 | 23 Feb. (54) . . . | 5 Thur. . . | 46-4896 | 4011 | |
| 23 Mar. (82) . . . | 6 Fri. . . | 14 13 39 | 14 Mar. (73) . . . | 4 Wed. . . | 81-1720 | 4012 | |
| 23 Mar. (82) . . . | 0 Sat. . . | 20 25 48 | 4 Mar. (63) . . . | 2 Mon. . . | 295-5269 | 4013 | |
| 23 Mar. (83) . . . | 2 Mon. . . | 2 37 57 | 22 Mar. (82) . . . | 1 Sun. . . | 330-492 | 4014 | |
| 23 Mar. (82) . . . | 3 Tues. . . | 8 50 6 | 11 Mar. (70) . . . | 5 Thur. . . | 205-9321 | 4015 | |
| 23 Mar. (82) . . . | 4 Wed. . . | 15 2 15 | 28 Feb. (59) . . . | 2 Mon. . . | 81-6549 | 4016 | |
| 23 Mar. (82) . . . | 5 Thur. . . | 21 14 24 | 19 Mar. (78) . . . | 1 Sun. . . | 116-3373 | 4017 | |
| 23 Mar. (83) . . . | 0 Sat. . . | 3 26 33 | 8 Mar. (68) . . . | 6 Fri. . . | 330-6921 | 4018 | |
| 23 Mar. (82) . . . | 1 Sun. . . | 9 38 42 | 25 Feb. (56) . . . | 3 Tues. . . | 206-4150 | 4019 | |
| 23 Mar. (82) . . . | 2 Mon. . . | 15 50 51 | 16 Mar. (75) . . . | 2 Mon. . . | 241-0974 | 4020 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4021 | 842 | 977 | 326 | 94-95 | 919-20 | 13 Pramāthin | 14 Vikrama | ... |
| 4022 | 843 | 978 | 327 | 95-96 | *920-21 | 14 Vikrama | 15 Vṛisha | 1 Chaitra |
| 4023 | 844 | 979 | 328 | 96-97 | 921-22 | 15 Vṛisha | 16 Chitrabhānu | ... |
| 4024 | 845 | 980 | 329 | 97-98 | 922-23 | 16 Chitrabhānu | 17 Subhānu | 9 Mārgasīra |
| 4025 | 846 | 981 | 330 | 98-99 | 923-24 | 17 Subhānu | 18 Tārana | ... |
| 4026 | 847 | 982 | 331 | 99-100 | *924-25 | 18 Tārana | 19 Pārthiva | ... |
| 4027 | 848 | 983 | 332 | 100-01 | 925-26 | 19 Pārthiva | 20 Vyaya | 6 Bhādrapada |
| 4028 | 849 | 984 | 333 | 101-02 | 926-27 | 20 Vyaya | 21 Sarvajit | ... |
| 4029 | 850 | 985 | 334 | 102-03 | 927-28 | 21 Sarvajit | 22 Sarvadhārin | ... |
| 4030 | 851 | 986 | 335 | 103-04 | *928-29 | 22 Sarvadhārin | 23 Virōdhin | 2 Vaiśākha |
| 4031 | 852 | 987 | 336 | 104-05 | 929-30 | 23 Virōdhin | 24 Vikṛita | ... |
| 4032 | 853 | 988 | 337 | 105-06 | 930-31 | 24 Vikṛita | 25 Khara | 11 Māgha |
| 4033 | 854 | 989 | 338 | 106-07 | 931-32 | 25 Khara | 26 Nandana | ... |
| 4034 | 855 | 990 | 339 | 107-08 | *932-33 | 26 Nandana | 27 Vijaya | ... |
| 4035 | 856 | 991 | 340 | 108-09 | 933-34 | 27 Vijaya | 28 Jaya | 7 Āśvina |
| 4036 | 857 | 992 | 341 | 109-10 | 934-35 | 28 Jaya | 29 Manmatha | ... |
| 4037 | 858 | 993 | 342 | 110-11 | 935-36 | 29 Manmatha | 30 Durmukha | ... |
| 4038 | 859 | 994 | 343 | 111-12 | *936-37 | 30 Durmukha | 31 Hēmalamba | 4 Āshāḍha |
| 4039 | 860 | 995 | 344 | 112-13 | 937-38 | 31 Hēmalamba | 32 Vilamba | ... |
| 4040 | 861 | 996 | 345 | 113-14 | 938-39 | 32 Vilamba | 33 Vikārin | ... |
| 4041 | 862 | 997 | 346 | 114-15 | 939-40 | 33 Vikārin | 34 Śārvarin | 1 Chaitra |
| 4042 | 863 | 998 | 347 | 115-16 | *940-41 | 34 Śārvarin | 35 Plava | ... |
| 4043 | 864 | 999 | 348 | 116-17 | 941-42 | 35 Plava | 36 Śubhakṛit | 9 Mārgasīra |
| 4044 | 865 | 1000 | 349 | 117-18 | 942-43 | 36 Subhakṛit | 37 Śōbhana | ... |
| 4045 | 866 | 1001 | 350 | 118-19 | 943-44 | 37 Śōbhana | 38 Krōdhin | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mōsha-samkrānti. | Day and month, A.D. | Week-day. | α (here = t , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 23 Mar. (82) . . . | 3 Tues. . . | 22 3 0 | 5 Mar. (64) . . . | 6 Fri. . . | 116·8202 | 4021 |
| 23 Mar. (83) . . . | 5 Thur. . . | 4 15 9 | 23 Feb. (54) . . . | 4 Wed. . . | 331·1750 | 4022 |
| 23 Mar. (82) . . . | 6 Fri. . . | 10 27 18 | 12 Mar. (71) . . . | 2 Mon. . . | 27·2254 | 4023 |
| 23 Mar. (82) . . . | 0 Sat. . . | 16 39 27 | 2 Mar. (61) . . . | 0 Sat. . . | 211·5802 | 4024 |
| 23 Mar. (82) . . . | 1 Sun. . . | 22 51 36 | 21 Mar. (80) . . . | 6 Fri. . . | 276·2626 | 4025 |
| 23 Mar. (83) . . . | 3 Tues. . . | 5 3 45 | 9 Mar. (69) . . . | 3 Tues. . . | 151·9855 | 4026 |
| 23 Mar. (82) . . . | 4 Wed. . . | 11 15 54 | 26 Feb. (57) . . . | 0 Sat. . . | 27·7084 | 4027 |
| 23 Mar. (82) . . . | 5 Thur. . . | 17 28 3 | 17 Mar. (76) . . . | 6 Fri. . . | 62·3907 | 4028 |
| 23 Mar. (82) . . . | 6 Fri. . . | 23 40 12 | 7 Mar. (66) . . . | 4 Wed. . . | 276·7455 | 4029 |
| 23 Mar. (83) . . . | 1 Sun. . . | 5 52 21 | 24 Feb. (55) . . . | 1 Sun. . . | 152·4684 | 4030 |
| 23 Mar. (82) . . . | 2 Mon. . . | 12 4 30 | 14 Mar. (73) . . . | 0 Sat. . . | 187·1507 | 4031 |
| 23 Mar. (82) . . . | 3 Tues. . . | 18 16 39 | 3 Mar. (62) . . . | 4 Wed. . . | 62·8736 | 4032 |
| 24 Mar. (83) . . . | 5 Thur. . . | 0 28 48 | 22 Mar. (81) . . . | 3 Tues. . . | 97·5560 | 4033 |
| 23 Mar. (83) . . . | 6 Fri. . . | 6 40 57 | 11 Mar. (71) . . . | 1 Sun. . . | 311·9109 | 4034 |
| 23 Mar. (82) . . . | 0 Sat. . . | 12 53 6 | 28 Feb. (59) . . . | 5 Thur. . . | 187·6336 | 4035 |
| 23 Mar. (82) . . . | 1 Sun. . . | 19 5 15 | 19 Mar. (78) . . . | 4 Wed. . . | 222·3161 | 4036 |
| 24 Mar. (83) . . . | 3 Tues. . . | 1 17 24 | 8 Mar. (67) . . . | 1 Sun. . . | 98·0389 | 4037 |
| 23 Mar. (83) . . . | 4 Wed. . . | 7 29 33 | 26 Feb. (57) . . . | 6 Fri. . . | 312·3938 | 4038 |
| 23 Mar. (82) . . . | 5 Thur. . . | 13 41 42 | 15 Mar. (74) . . . | 4 Wed. . . | 8·4441 | 4039 |
| 23 Mar. (82) . . . | 6 Fri. . . | 19 53 51 | 5 Mar. (64) . . . | 2 Mon. . . | 222·7990 | 4040 |
| 24 Mar. (83) . . . | 1 Sun. . . | 2 6 0 | 22 Feb. (53) . . . | 6 Fri. . . | 98·5218 | 4041 |
| 23 Mar. (83) . . . | 2 Mon. . . | 8 18 9 | 12 Mar. (72) . . . | 5 Thur. . . | 133·2042 | 4042 |
| 23 Mar. (82) . . . | 3 Tues. . . | 14 30 18 | 1 Mar. (60) . . . | 2 Mon. . . | 8·9270 | 4043 |
| 23 Mar. (82) . . . | 4 Wed. . . | 20 42 27 | 20 Mar. (79) . . . | 1 Sun. . . | 43·6094 | 4044 |
| 24 Mar. (83) . . . | 6 Fri. . . | 2 54 36 | 10 Mar. (69) . . . | 6 Fri. . . | 257·9643 | 4045 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3 a | 4 | 5 | 6 | 7 | 8a |
| 4046 | 867 | 1002 | 351 | 119-20 | *944-45 | 38 Krōdhin . | 39 Viśvāvasu . | 6 Bhādrapada . |
| 4047 | 868 | 1003 | 352 | 120-21 | 945-46 | 39 Viśvāvasu . | 40 Parābhava . | ... |
| 4048 | 869 | 1004 | 353 | 121-22 | 946-47 | 40 Parābhava . | 41 Plavaṅga . | ... |
| 4049 | 870 | 1005 | 354 | 122-23 | 947-48 | 41 Plavaṅga . | 42 Kīlaka . | 2 Vaiśākha . |
| 4050 | 871 | 1006 | 355 | 123-24 | *948-49 | 42 Kīlaka . | 43 Saumya . | ... |
| 4051 | 872 | 1007 | 356 | 124-25 | 949-50 | 43 Saumya . | 44 Sādhārana . | 11 Māgha . |
| 4052 | 873 | 1008 | 357 | 125-26 | 950-51 | 44 Sādhārana . | 45 Virōdhakṛit . | ... |
| 4053 | 874 | 1009 | 358 | 126-27 | 951-52 | 45 Virōdhakṛit . | 46 Paridhāvin . | ... |
| 4054 | 875 | 1010 | 359 | 127-28 | *952-53 | 46 Paridhāvin . | 47 Pramādin . | 7 Āsвина . |
| 4055 | 876 | 1011 | 360 | 128-29 | 953-54 | 47 Pramādin . | 48 Ānanda . | ... |
| 4056 | 877 | 1012 | 361 | 129-30 | 954-55 | 48 Ānanda . | 49 Rākshasa . | ... |
| 4057 | 878 | 1013 | 362 | 130-31 | 955-56 | 49 Rākshasa . | 50 Anala . | 4 Āshāḍha . |
| 4058 | 879 | 1014 | 363 | 131-32 | *956-57 | 50 Anala . | 51 Piṅgala . | ... |
| 4059 | 880 | 1015 | 364 | 132-33 | 957-58 | 51 Piṅgala . | 52 Kālayukta . | 12 Phālguna . |
| 4060 | 881 | 1016 | 365 | 133-34 | 958-59 | 52 Kālayukta . | 53 Siddhārthin . | ... |
| 4061 | 882 | 1017 | 366 | 134-35 | 959-60 | 53 Siddhārthin . | 54 Randra . | ... |
| 4062 | 883 | 1018 | 367 | 135-36 | *960-61 | 54 Randra . | 55 Durmati . | 9 Mārgasīra . |
| 4063 | 884 | 1019 | 368 | 136-37 | 961-62 | 55 Durmati . | 56 Dundubhi . | ... |
| 4064 | 885 | 1020 | 369 | 137-38 | 962-63 | 56 Dundubhi . | 57 Rudhirōdgārin . | ... |
| 4065 | 886 | 1021 | 370 | 138-39 | 963-64 | 57 Rudhirōdgārin . | 58 Raktāksha . | 5 Śrāvaṇa . |
| 4066 | 887 | 1022 | 371 | 139-40 | *964-65 | 58 Raktāksha . | 59 Krōdhana . | ... |
| 4067 | 888 | 1023 | 372 | 140-41 | 965-66 | 59 Krōdhana . | 60 Kshaya . | ... |
| 4068 | 889 | 1024 | 373 | 141-42 | 966-67 | 60 Kshaya . | 1 Prabhava . | 2 Vaiśākha . |
| 4069 | 890 | 1025 | 374 | 142-43 | 967-68 | 1 Prabhava . | 2 Vibhava . | ... |
| 4070 | 891 | 1026 | 375 | 143-44 | *968-69 | 2 Vibhava . | 3 Sukla . | 10 Pausa . |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here α , the index of the t/t_i). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 23 Mar. (83) . . . | 0 Sat. . . | 9 6 45 | 27 Feb. (58) . . . | 3 Tues. . . | 133·6871 | 4046 |
| 23 Mar. (82) . . . | 1 Sun. . . | 15 18 54 | 17 Mar. (76) . . . | 2 Mon. . . | 168·3695 | 4047 |
| 23 Mar. (82) . . . | 2 Mon. . . | 21 31 3 | 6 Mar. (65) . . . | 6 Fri. . . | 44·0923 | 4048 |
| 24 Mar. (83) . . . | 4 Wed. . . | 3 43 12 | 24 Feb. (55) . . . | 4 Wed. . . | 258·4471 | 4049 |
| 23 Mar. (83) . . . | 5 Thur. . . | 9 55 21 | 14 Mar. (74) . . . | 3 Tues. . . | 293·1295 | 4050 |
| 23 Mar. (82) . . . | 6 Fri. . . | 16 7 30 | 3 Mar. (62) . . . | 0 Sat. . . | 168·8524 | 4051 |
| 23 Mar. (82) . . . | 0 Sat. . . | 22 19 39 | 22 Mar. (81) . . . | 6 Fri. . . | 203·5348 | 4052 |
| 24 Mar. (83) . . . | 2 Mon. . . | 4 31 48 | 11 Mar. (70) . . . | 3 Tues. . . | 79·2576 | 4053 |
| 23 Mar. (83) . . . | 3 Tues. . . | 10 43 57 | 29 Feb. (60) . . . | 1 Sun. . . | 293·6125 | 4054 |
| 23 Mar. (82) . . . | 4 Wed. . . | 16 56 6 | 19 Mar. (78) . . . | 0 Sat. . . | 328·2949 | 4055 |
| 23 Mar. (82) . . . | 5 Thur. . . | 23 8 15 | 8 Mar. (67) . . . | 4 Wed. . . | 204·0176 | 4056 |
| 24 Mar. (83) . . . | 0 Sat. . . | 5 20 24 | 25 Feb. (56) . . . | 1 Sun. . . | 79·7405 | 4057 |
| 23 Mar. (83) . . . | 1 Sun. . . | 11 32 33 | 15 Mar. (75) . . . | 0 Sat. . . | 114·4229 | 4058 |
| 23 Mar. (82) . . . | 2 Mon. . . | 17 44 42 | 5 Mar. (64) . . . | 5 Thur. . . | 328·7778 | 4059 |
| 23 Mar. (82) . . . | 3 Tues. . . | 23 56 51 | 23 Mar. (82) . . . | 1 Sun. . . | 24·8281 | 4060 |
| 24 Mar. (83) . . . | 5 Thur. . . | 6 9 0 | 13 Mar. (72) . . . | 1 Sun. . . | 239·1830 | 4061 |
| 23 Mar. (83) . . . | 6 Fri. . . | 12 21 9 | 1 Mar. (61) . . . | 5 Thur. . . | 114·9058 | 4062 |
| 23 Mar. (82) . . . | 0 Sat. . . | 18 33 18 | 20 Mar. (79) . . . | 4 Wed. . . | 149·5881 | 4063 |
| 24 Mar. (83) . . . | 2 Mon. . . | 0 45 27 | 9 Mar. (68) . . . | 1 Sun. . . | 25·3110 | 4064 |
| 24 Mar. (83) . . . | 3 Tues. . . | 6 57 36 | 27 Feb. (58) . . . | 6 Fri. . . | 239·6659 | 4065 |
| 23 Mar. (83) . . . | 4 Wed. . . | 13 9 45 | 17 Mar. (77) . . . | 5 Thur. . . | 274·3483 | 4066 |
| 23 Mar. (82) . . . | 5 Thur. . . | 19 21 54 | 6 Mar. (65) . . . | 2 Mon. . . | 150·0710 | 4067 |
| 24 Mar. (83) . . . | 0 Sat. . . | 1 34 3 | 23 Feb. (54) . . . | 6 Fri. . . | 25·7939 | 4068 |
| 24 Mar. (83) . . . | 1 Sun. . . | 7 46 12 | 14 Mar. (73) . . . | 5 Thur. . . | 60·4763 | 4069 |
| 23 Mar. (83) . . . | 2 Mon. . . | 13 58 21 | 3 Mar. (63) . . . | 3 Tues. . . | 274·8311 | 4070 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|---------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4071 | 892 | 1027 | 376 | 144-45 | 969-70 | 3 Śukla . . | 4 Prajñōda . . | ... |
| 4072 | 893 | 1028 | 377 | 145-46 | 970-71 | 4 Pramōda . . | 5 Prajāpati . . | ... |
| 4073 | 894 | 1029 | 378 | 146-47 | 971-72 | 5 Prajāpati . . | 6 Aṅgiras . . | 7 Āśvina . . |
| 4074 | 895 | 1030 | 379 | 147-48 | *972-73 | 6 Aṅgiras . . | 7 Śrīmukha . . | ... |
| 4075 | 896 | 1031 | 380 | 148-49 | 973-74 | 7 Śrīmukha . . | 8 Bhāva . . | ... |
| 4076 | 897 | 1032 | 381 | 149-50 | 974-75 | 8 Bhāva . . | 9 Yuvan . . | 4 Āshādha . . |
| 4077 | 898 | 1033 | 382 | 150-51 | 975-76 | 9 Yuvan . . | 10 Dhātṛi . . | ... |
| 4078 | 899 | 1034 | 383 | 151-52 | *976-77 | 10 Dhātṛi . . | 11 Īśvara . . | 12 Phālguna . . |
| 4079 | 900 | 1035 | 384 | 152-53 | 977-78 | 11 Īśvara . . | 12 Bahudhānya . . | ... |
| 4080 | 901 | 1036 | 385 | 153-54 | 978-79 | 12 Bahudhānya . . | 13 Pramāthin . . | ... |
| 4081 | 902 | 1037 | 386 | 154-55 | 979-80 | 13 Pramāthin . . | 14 Vikrama . . | 9 Mārgasīra . . |
| 4082 | 903 | 1038 | 387 | 155-56 | *980-81 | 14 Vikrama . . | 15 Vṛisha . . | ... |
| 4083 | 904 | 1039 | 388 | 156-57 | 981-82 | 15 Vṛisha . . | 16 Chitrabhānu . . | ... |
| 4084 | 905 | 1040 | 389 | 157-58 | 982-83 | 16 Chitrabhānu . . | 17 Subhānu . . | 5 Srāvaṇa . . |
| 4085 | 906 | 1041 | 390 | 158-59 | 983-84 | 17 Subhānu . . | 18 Tārana . . | ... |
| 4086 | 907 | 1042 | 391 | 159-60 | *984-85 | 18 Tārana . . | 19 Pārthiva . . | ... |
| 4087 | 908 | 1043 | 392 | 160-61 | 985-86 | 19 Pārthiva . . | 20 Vyaya . . | 2 Vaiśākha . . |
| 4088 | 909 | 1044 | 393 | 161-62 | 986-87 | 20 Vyaya . . | 21 Sarvajit . . | ... |
| 4089 | 910 | 1045 | 394 | 162-63 | 987-88 | 21 Sarvajit . . | 22 Sarvadhārin . . | 10 Pausa . . |
| 4090 | 911 | 1046 | 395 | 163-64 | *988-89 | 22 Sarvadhārin . . | 23 Virōdhin . . | ... |
| 4091 | 912 | 1047 | 396 | 164-65 | 989-90 | 23 Virōdhin . . | 24 Vikṛita † . . | ... |
| 4092 | 913 | 1048 | 397 | 165-66 | 990-91 | 24 Vikṛita . . | 25 Nandana . . | 7 Āśvina . . |
| 4093 | 914 | 1049 | 398 | 166-67 | 991-92 | 25 Khara . . | 26 Vijaya . . | ... |
| 4094 | 915 | 1050 | 399 | 167-68 | *992-93 | 26 Nandana . . | 27 Jaya . . | ... |
| 4095 | 916 | 1051 | 400 | 168-69 | 993-94 | 27 Vijaya . . | 28 Manmatha . . | 3 Jyēṣṭha . . |

† 25 Khara was suppressed in the north by the *Brahma-Siddhanta* system, whether calculated by "true" or mean reckoning.

XC—contd.

| COMMENCEMENT OF THE | | | | | | | Kali. |
|---------------------|-------------|-------------------------------|---|-------------|---|------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITEA ŚUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | α (here = t , the index of the <i>tithi</i>). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 23 Mar. (82) . . . | 3 Tues. . . | 20 10 30 | 22 Mar. (81) . . . | 2 Mon. . . | 309·5135 | 4071 | |
| 24 Mar. (83) . . . | 5 Thur. . . | 2 22 39 | 11 Mar. (70) . . . | 6 Fri. . . | 185·2364 | 4072 | |
| 24 Mar. (83) . . . | 6 Fri. . . | 8 34 48 | 28 Feb. (59) . . . | 3 Tues. . . | 60·9593 | 4073 | |
| 23 Mar. (83) . . . | 0 Sat. . . | 14 46 57 | 18 Mar. (78) . . . | 2 Mon. . . | 95·6416 | 4074 | |
| 23 Mar. (82) . . . | 1 Sun. . . | 20 59 6 | 8 Mar. (67) . . . | 0 Sat. . . | 309·9964 | 4075 | |
| 24 Mar. (83) . . . | 3 Tues. . . | 3 11 15 | 25 Feb. (56) . . . | 4 Wed. . . | 185·7193 | 4076 | |
| 24 Mar. (83) . . . | 4 Wed. . . | 9 23 24 | 16 Mar. (75) . . . | 3 Tues. . . | 220·4016 | 4077 | |
| 23 Mar. (83) . . . | 5 Thur. . . | 15 35 33 | 4 Mar. (64) . . . | 0 Sat. . . | 96·1245 | 4078 | |
| 23 Mar. (82) . . . | 6 Fri. . . | 21 47 42 | 23 Mar. (82) . . . | 6 Fri. . . | 130·8069 | 4079 | |
| 24 Mar. (83) . . . | 1 Sun. . . | 3 59 51 | 12 Mar. (71) . . . | 3 Tues. . . | 6·5298 | 4080 | |
| 24 Mar. (83) . . . | 2 Mon. . . | 10 12 0 | 2 Mar. (61) . . . | 1 Sun. . . | 220·8845 | 4081 | |
| 23 Mar. (83) . . . | 3 Tues. . . | 16 24 9 | 20 Mar. (80) . . . | 0 Sat. . . | 255·5669 | 4082 | |
| 23 Mar. (82) . . . | 4 Wed. . . | 22 36 18 | 9 Mar. (68) . . . | 4 Wed. . . | 131·2898 | 4083 | |
| 24 Mar. (83) . . . | 6 Fri. . . | 4 48 27 | 28 Feb. (57) . . . | 1 Sun. . . | 7·0127 | 4084 | |
| 24 Mar. (83) . . . | 0 Sat. . . | 11 0 36 | 17 Mar. (76) . . . | 0 Sat. . . | 41·6950 | 4085 | |
| 23 Mar. (83) . . . | 1 Sun. . . | 17 12 45 | 6 Mar. (66) . . . | 5 Thur. . . | 256·0499 | 4086 | |
| 23 Mar. (82) . . . | 2 Mon. . . | 23 24 54 | 23 Feb. (54) . . . | 2 Mon. . . | 131·7727 | 4087 | |
| 24 Mar. (83) . . . | 4 Wed. . . | 5 37 3 | 14 Mar. (73) . . . | 1 Sun. . . | 166·4550 | 4088 | |
| 24 Mar. (83) . . . | 5 Thur. . . | 11 49 12 | 3 Mar. (62) . . . | 5 Thur. . . | 42·1779 | 4089 | |
| 23 Mar. (83) . . . | 6 Fri. . . | 18 1 21 | 21 Mar. (81) . . . | 4 Wed. . . | 76·8603 | 4090 | |
| 24 Mar. (83) . . . | 1 Sun. . . | 0 13 30 | 11 Mar. (70) . . . | 2 Mon. . . | 291·2152 | 4091 | |
| 24 Mar. (83) . . . | 2 Mon. . . | 6 25 39 | 28 Feb. (59) . . . | 6 Fri. . . | 166·9398 | 4092 | |
| 24 Mar. (83) . . . | 3 Tues. . . | 12 37 48 | 19 Mar. (78) . . . | 5 Thur. . . | 201·6204 | 4093 | |
| 23 Mar. (83) . . . | 4 Wed. . . | 18 49 57 | 7 Mar. (67) . . . | 2 Mon. . . | 77·3432 | 4094 | |
| 24 Mar. (83) . . . | 6 Fri. . . | 1 2 6 | 25 Feb. (56) . . . | 0 Sat. . . | 291·6980 | 4095 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|------------------------|--|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4096 | 917 | 1052 | 401 | 169-70 | 994-95 | 28 Jaya . . | 30 <i>Durmukha</i> . . | ... |
| 4097 | 918 | 1053 | 402 | 170-71 | 995-96 | 29 Manmatha . . | 31 Hēmalamba . . | 12 Phālguna . . |
| 4098 | 919 | 1054 | 403 | 171-72 | *996-97 | 30 Durmukha . . | 32 Vilamba . . | ... |
| 4099 | 920 | 1055 | 404 | 172-73 | 997-98 | 31 Hēmalamba . . | 33 Vikārin . . | ... |
| 4100 | 921 | 1056 | 405 | 173-74 | 998-99 | 32 Vilamba . . | 34 Śārvarin . . | 8 Kārttika . . |
| 4101 | 922 | 1057 | 406 | 174-75 | 999-1000 | 33 Vikārin . . | 35 Plava . . | ... |
| 4102 | 923 | 1058 | 407 | 175-76 | *1000-01 | 34 Śārvarin . . | 36 Śubhakṛit . . | ... |
| 4103 | 924 | 1059 | 408 | 176-77 | 1001-02 | 35 Plava . . | 37 Śōbhana . . | 5 Śrāvana . . |
| 4104 | 925 | 1060 | 409 | 177-78 | 1002-03 | 36 Śubhakṛit . . | 38 Krōdhin . . | ... |
| 4105 | 926 | 1061 | 410 | 178-79 | 1003-04 | 37 Śōbhana . . | 39 Viśvāvasu . . | ... |
| 4106 | 927 | 1062 | 411 | 179-80 | *1004-05 | 38 Krōdhin . . | 40 Parābhava . . | 1 Chaitra . . |
| 4107 | 928 | 1063 | 412 | 180-81 | 1005-06 | 39 Viśvāvasu . . | 41 Plavaṅga . . | ... |
| 4108 | 929 | 1064 | 413 | 181-82 | 1006-07 | 40 Parābhava . . | 42 Kīlaka . . | 10 Pausa . . |
| 4109 | 930 | 1065 | 414 | 182-83 | 1007-08 | 41 Plavaṅga . . | 43 Saumya . . | ... |
| 4110 | 931 | 1066 | 415 | 183-84 | *1008-09 | 42 Kīlaka . . | 44 Sūdhārāṇa . . | ... |
| 4111 | 932 | 1067 | 416 | 184-85 | 1009-10 | 43 Saumya . . | 45 Virōdhakṛit . . | 7 Āśvina† . . |
| 4112 | 933 | 1068 | 417 | 185-86 | 1010-11 | 44 Sūdhārāṇa . . | 46 Paridhāvin . . | ... |
| 4113 | 934 | 1069 | 418 | 186-87 | 1011-12 | 45 Virōdhakṛit . . | 47 Pramādin . . | ... |
| 4114 | 935 | 1070 | 419 | 187-88 | *1012-13 | 46 Paridhāvin . . | 48 Ānanda . . | 3 Jyēṣṭha . . |
| 4115 | 936 | 1071 | 420 | 188-89 | 1013-14 | 47 Pramādin . . | 49 Rākshasa . . | ... |
| 4116 | 937 | 1072 | 421 | 189-90 | 1014-15 | 48 Ānanda . . | 50 Anala . . | 12 Phālguna . . |
| 4117 | 938 | 1073 | 422 | 190-91 | 1015-16 | 49 Rākshasa . . | 51 Piṅgala . . | ... |
| 4118 | 939 | 1074 | 423 | 191-92 | *1016-17 | 50 Anala . . | 52 Kālayukta . . | ... |
| 4119 | 940 | 1075 | 424 | 192-93 | 1017-18 | 51 Piṅgala . . | 53 Siddhārthin . . | 8 Kārttika . . |
| 4120 | 941 | 1076 | 425 | 193-94 | 1018-19 | 52 Kālayukta . . | 54 Randra . . | ... |

† See "Remarks," p. 215 above.

XC—*contd.*

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 24 Mar. (83) . . . | 0 Sat. . . | 7 14 15 | 16 Mar. (75) . . . | 6 Fri. . . | 326-3804 | 4096 |
| 24 Mar. (83) . . . | 1 Sun. . . | 13 26 24 | 5 Mar. (64) . . . | 3 Tues. . . | 202-1033 | 4097 |
| 23 Mar. (83) . . . | 2 Mon. . . | 19 38 33 | 23 Mar. (83) . . . | 2 Mon. . . | 226-7856 | 4098 |
| 24 Mar. (83) . . . | 4 Wed. . . | 1 50 42 | 12 Mar. (71) . . . | 6 Fri. . . | 112-5085 | 4099 |
| 24 Mar. (83) . . . | 5 Thur. . . | 8 2 51 | 2 Mar. (61) . . . | 4 Wed. . . | 326-8633 | 4100 |
| 24 Mar. (83) . . . | 6 Fri. . . | 14 15 0 | 20 Mar. (79) . . . | 2 Mon. . . | 22-9136 | 4101 |
| 23 Mar. (83) . . . | 0 Sat. . . | 20 27 9 | 9 Mar. (69) . . . | 0 Sat. . . | 237-2685 | 4102 |
| 24 Mar. (83) . . . | 2 Mon. . . | 2 39 18 | 26 Feb. (57) . . . | 4 Wed. . . | 112-9914 | 4103 |
| 24 Mar. (83) . . . | 3 Tues. . . | 8 51 27 | 17 Mar. (76) . . . | 3 Tues. . . | 147-6737 | 4104 |
| 24 Mar. (83) . . . | 4 Wed. . . | 15 3 36 | 6 Mar. (65) . . . | 0 Sat. . . | 23-2966 | 4105 |
| 23 Mar. (83) . . . | 5 Thur. . . | 21 15 45 | 24 Feb. (55) . . . | 5 Thur. . . | 237-7514 | 4106 |
| 24 Mar. (83) . . . | 0 Sat. . . | 3 27 54 | 14 Mar. (73) . . . | 4 Wed. . . | 272-4338 | 4107 |
| 24 Mar. (83) . . . | 1 Sun. . . | 9 40 3 | 3 Mar. (62) . . . | 1 Sun. . . | 148-1566 | 4108 |
| 24 Mar. (83) . . . | 2 Mon. . . | 15 52 12 | 22 Mar. (81) . . . | 0 Sat. . . | 182-8390 | 4109 |
| 23 Mar. (83) . . . | 3 Tues. . . | 22 4 21 | 10 Mar. (70) . . . | 4 Wed. . . | 58-5618 | 4110 |
| 24 Mar. (83) . . . | 5 Thur. . . | 4 16 30 | 28 Feb. (59) . . . | 2 Mon. . . | 272-9167 | 4111 |
| 24 Mar. (83) . . . | 6 Fri. . . | 10 28 39 | 19 Mar. (78) . . . | 1 Sun. . . | 307-5991 | 4112 |
| 24 Mar. (83) . . . | 0 Sat. . . | 16 40 48 | 8 Mar. (67) . . . | 5 Thur. . . | 183-3219 | 4113 |
| 23 Mar. (83) . . . | 1 Sun. . . | 22 52 57 | 25 Feb. (56) . . . | 2 Mon. . . | 59-0447 | 4114 |
| 24 Mar. (83) . . . | 3 Tues. . . | 5 5 6 | 15 Mar. (74) . . . | 1 Sun. . . | 93-7270 | 4115 |
| 24 Mar. (83) . . . | 4 Wed. . . | 11 17 15 | 5 Mar. (64) . . . | 6 Fri. . . | 308-0820 | 4116 |
| 24 Mar. (83) . . . | 5 Thur. . . | 17 29 24 | 23 Mar. (82) . . . | 4 Wed. . . | 4-1323 | 4117 |
| 23 Mar. (83) . . . | 6 Fri. . . | 23 41 33 | 12 Mar. (72) . . . | 2 Mon. . . | 218-4872 | 4118 |
| 24 Mar. (83) . . . | 1 Sun. . . | 5 53 42 | 1 Mar. (60) . . . | 6 Fri. . . | 94-2100 | 4119 |
| 24 Mar. (83) . . . | 2 Mon. . . | 12 5 51 | 20 Mar. (79) . . . | 5 Thur. . . | 128-8924 | 4120 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kali. | Śaka. | Chaitrādi Vikrama. | Meghādī solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4121 | 942 | 1077 | 426 | 194-95 | 1019-20 | 53 Siddhārthin . | 55 Durmati . | ... |
| 4122 | 943 | 1078 | 427 | 195-96 | *1020-21 | 54 Randra . | 56 Dundubhi . | 5 Śrāvaṇa . |
| 4123 | 944 | 1079 | 428 | 196-97 | 1021-22 | 55 Durmati . | 57 Rudhirōdgārin . | ... |
| 4124 | 945 | 1080 | 429 | 197-98 | 1022-23 | 56 Dundubhi . | 58 Raktāksha . | ... |
| 4125 | 946 | 1081 | 430 | 198-99 | 1023-24 | 57 Rudhirōdgārin . | 59 Krōdhana . | 1 Chaitra . |
| 4126 | 947 | 1082 | 431 | 199-200 | *1024-25 | 58 Raktāksha . | 60 Kshaya . | ... |
| 4127 | 948 | 1083 | 432 | 200-01 | 1025-26 | 59 Krōdhana . | 1 Prabhava . | 10 Pansha . |
| 4128 | 949 | 1084 | 433 | 201-02 | 1026-27 | 60 Kshaya . | 2 Vibhava . | ... |
| 4129 | 950 | 1085 | 434 | 202-03 | 1027-28 | 1 Prabhava . | 3 Śukla . | ... |
| 4130 | 951 | 1086 | 435 | 203-04 | *1028-29 | 2 Vibhava . | 4 Pramōda . | 6 Bhādrapada . |
| 4131 | 952 | 1087 | 436 | 204-05 | 1029-30 | 3 Śukla . | 5 Prajāpati . | ... |
| 4132 | 953 | 1088 | 437 | 205-06 | 1030-31 | 4 Pramōda . | 6 Angiras . | ... |
| 4133 | 954 | 1089 | 438 | 206-07 | 1031-32 | 5 Prajāpati . | 7 Śrīmukha . | 3 Jyēsthā . |
| 4134 | 955 | 1090 | 439 | 207-08 | *1032-33 | 6 Angiras . | 8 Bhāva . | ... |
| 4135 | 956 | 1091 | 440 | 208-09 | 1033-34 | 7 Śrīmukha . | 9 Yuvan . | 11 Māgha . |
| 4136 | 957 | 1092 | 441 | 209-10 | 1034-35 | 8 Bhāva . | 10 Dhātṛi . | ... |
| 4137 | 958 | 1093 | 442 | 210-11 | 1035-36 | 9 Yuvan . | 11 Ívara . | ... |
| 4138 | 959 | 1094 | 443 | 211-12 | *1036-37 | 10 Dhātṛi . | 12 Bahudhānya . | 8 Kārttika . |
| 4139 | 960 | 1095 | 444 | 212-13 | 1037-38 | 11 Ívara . | 13 Pramāthin . | ... |
| 4140 | 961 | 1096 | 445 | 213-14 | 1038-39 | 12 Bahudhānya . | 14 Vikrama . | ... |
| 4141 | 962 | 1097 | 446 | 214-15 | 1039-40 | 13 Pramāthin . | 15 Vṛisha . | 4 Āshāḍha . |
| 4142 | 963 | 1098 | 447 | 215-16 | *1040-41 | 14 Vikrama . | 16 Chitrabhānu . | ... |
| 4143 | 964 | 1099 | 448 | 216-17 | 1041-42 | 15 Vṛisha . | 17 Subhānu . | ... |
| 4144 | 965 | 1100 | 449 | 217-18 | 1042-43 | 16 Chitrabhānu . | 18 Tārana . | 1 Chaitra . |
| 4145 | 966 | 1101 | 450 | 218-19 | 1043-44 | 17 Subhānu . | 19 Pārthiva . | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṅkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 24 Mar. (83) . . . | 3 Tues. . . | 18 18 0 | 9 Mar. (68) . . . | 2 Mon. . . | 46131 | 4121 |
| 24 Mar. (84) . . . | 5 Thur. . . | 0 30 9 | 27 Feb. (58) . . . | 0 Sat. . . | 2189701 | 4122 |
| 24 Mar. (83) . . . | 6 Fri. . . | 6 42 18 | 17 Mar. (76) . . . | 6 Fri. . . | 2536525 | 4123 |
| 24 Mar. (83) . . . | 0 Sat. . . | 12 54 27 | 6 Mar. (65) . . . | 3 Tues. . . | 1293753 | 4124 |
| 24 Mar. (83) . . . | 1 Sun. . . | 19 6 36 | 23 Feb. (54) . . . | 0 Sat. . . | 50981 | 4125 |
| 24 Mar. (84) . . . | 3 Tues. . . | 1 18 45 | 18 Mar. (73) . . . | 6 Fri. . . | 897806 | 4126 |
| 24 Mar. (83) . . . | 4 Wed. . . | 7 30 54 | 3 Mar. (62) . . . | 4 Wed. . . | 2541354 | 4127 |
| 24 Mar. (83) . . . | 5 Thur. . . | 13 43 3 | 22 Mar. (81) . . . | 3 Tues. . . | 2888177 | 4128 |
| 24 Mar. (83) . . . | 6 Fri. . . | 19 55 12 | 11 Mar. (70) . . . | 0 Sat. . . | 1645406 | 4129 |
| 24 Mar. (84) . . . | 1 Sun. . . | 2 7 21 | 28 Feb. (59) . . . | 4 Wed. . . | 402635 | 4130 |
| 24 Mar. (83) . . . | 2 Mon. . . | 8 19 30 | 18 Mar. (77) . . . | 3 Tues. . . | 749458 | 4131 |
| 24 Mar. (83) . . . | 3 Tues. . . | 14 31 39 | 8 Mar. (67) . . . | 1 Sun. . . | 2893006 | 4132 |
| 24 Mar. (83) . . . | 4 Wed. . . | 20 43 48 | 25 Feb. (56) . . . | 5 Thur. . . | 1650235 | 4133 |
| 24 Mar. (84) . . . | 6 Fri. . . | 2 55 57 | 15 Mar. (75) . . . | 4 Wed. . . | 1997059 | 4134 |
| 24 Mar. (83) . . . | 0 Sat. . . | 9 8 6 | 4 Mar. (63) . . . | 1 Sun. . . | 754287 | 4135 |
| 24 Mar. (83) . . . | 1 Sun. . . | 15 20 15 | 23 Mar. (82) . . . | 0 Sat. . . | 1101111 | 4136 |
| 24 Mar. (83) . . . | 2 Mon. . . | 21 32 24 | 13 Mar. (72) . . . | 5 Thur. . . | 3244660 | 4137 |
| 24 Mar. (84) . . . | 4 Wed. . . | 3 44 33 | 1 Mar. (61) . . . | 2 Mon. . . | 2001888 | 4138 |
| 24 Mar. (83) . . . | 5 Thur. . . | 9 56 42 | 20 Mar. (79) . . . | 1 Sun. . . | 2348712 | 4139 |
| 24 Mar. (83) . . . | 6 Fri. . . | 16 8 51 | 9 Mar. (68) . . . | 5 Thur. . . | 1105940 | 4140 |
| 24 Mar. (83) . . . | 0 Sat. . . | 22 21 0 | 27 Feb. (58) . . . | 3 Tues. . . | 3249489 | 4141 |
| 24 Mar. (84) . . . | 2 Mon. . . | 4 33 9 | 16 Mar. (76) . . . | 1 Sun. . . | 209992 | 4142 |
| 24 Mar. (83) . . . | 3 Tues. . . | 10 45 18 | 6 Mar. (65) . . . | 6 Fri. . . | 2353541 | 4143 |
| 24 Mar. (83) . . . | 4 Wed. . . | 16 57 27 | 23 Feb. (54) . . . | 3 Tues. . . | 1110793 | 4144 |
| 24 Mar. (83) . . . | 5 Thur. . . | 23 9 36 | 14 Mar. (73) . . . | 2 Mon. . . | 1457593 | 4145 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year in
Penzal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4146 | 967 | 1102 | 451 | 219-20 | *1044-45 | 18 Tārana . | 20 Vyaya . | 9 Mārgasīra . |
| 4147 | 968 | 1103 | 452 | 220-21 | 1045-46 | 19 Pārthiva . | 21 Sarvajit . | ... |
| 4148 | 969 | 1104 | 453 | 221-22 | 1046-47 | 20 Vyaya . | 22 Sarvadhārin . | ... |
| 4149 | 970 | 1105 | 454 | 222-23 | 1047-48 | 21 Sarvajit . | 23 Virōdhin . | 6 Bhādrapada . |
| 4150 | 971 | 1106 | 455 | 223-24 | *1048-49 | 22 Sarvadhārin . | 24 Vikṛita . | ... |
| 4151 | 972 | 1107 | 456 | 224-25 | 1049-50 | 23 Virōdhin . | 25 Khara . | ... |
| 4152 | 973 | 1108 | 457 | 225-26 | 1050-51 | 24 Vikṛita . | 26 Nandana . | 3 Jyēsthā . |
| 4153 | 974 | 1109 | 458 | 226-27 | 1051-52 | 25 Khara . | 27 Vijaya . | ... |
| 4154 | 975 | 1110 | 459 | 227-28 | *1052-53 | 26 Nandana . | 28 Jaya . | 11 Māgha . |
| 4155 | 976 | 1111 | 460 | 228-29 | 1053-54 | 27 Vijaya . | 29 Manmatha . | ... |
| 4156 | 977 | 1112 | 461 | 229-30 | 1054-55 | 28 Jaya . | 30 Durmukha . | ... |
| 4157 | 978 | 1113 | 462 | 230-31 | 1055-56 | 29 Manmatha . | 31 Hēmalamba . | 8 Kārttika . |
| 4158 | 979 | 1114 | 463 | 231-32 | *1056-57 | 30 Durmukha . | 32 Vilamba . | ... |
| 4159 | 980 | 1115 | 464 | 232-33 | 1057-58 | 31 Hēmalamba . | 33 Vikārin . | ... |
| 4160 | 981 | 1116 | 465 | 233-34 | 1058-59 | 32 Vilamba . | 34 Śārvarin . | 4 Āshāḍha . |
| 4161 | 982 | 1117 | 466 | 234-35 | 1059-60 | 33 Vikārin . | 35 Plava . | ... |
| 4162 | 983 | 1118 | 467 | 235-36 | *1060-61 | 34 Śārvarin . | 36 Śubhakṛit . | ... |
| 4163 | 984 | 1119 | 468 | 236-37 | 1061-62 | 35 Plava . | 37 Śōbhana . | 1 Chaitra . |
| 4164 | 985 | 1120 | 469 | 237-38 | 1062-63 | 36 Śubhakṛit . | 38 Krōdhin . | ... |
| 4165 | 986 | 1121 | 470 | 238-39 | 1063-64 | 37 Śōbhana . | 39 Viśvāvasu . | 9 Mārgasīra . |
| 4166 | 987 | 1122 | 471 | 239-40 | *1064-65 | 38 Krōdhin . | 40 Parābhava . | ... |
| 4167 | 988 | 1123 | 472 | 240-41 | 1065-66 | 39 Viśvāvasu . | 41 Plavaṅga . | ... |
| 4168 | 989 | 1124 | 473 | 241-42 | 1066-67 | 40 Parābhava . | 42 Kilaka . | 6 Bhādrapada . |
| 4169 | 990 | 1125 | 474 | 242-43 | 1067-68 | 41 Plavaṅga . | 43 Saumya . | ... |
| 4170 | 991 | 1126 | 475 | 243-44 | *1068-69 | 42 Kilaka . | 44 Sādhārana . | ... |

XC—*contd.*

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean M̐śha-samkrānti. | Day and month, A.D. | Week-day. | α (here = τ , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 24 Mar. (84) . . . | 0 Sat. . . | 5 21 45 | 2 Mar. (62) . . . | 6 Fri. . . | 21.4821 | 4146 |
| 24 Mar. (83) . . . | 1 Sun. . . | 11 33 54 | 21 Mar. (80) . . . | 5 Thur. . . | 56.1645 | 4147 |
| 24 Mar. (83) . . . | 2 Mon. . . | 17 46 3 | 11 Mar. (70) . . . | 3 Tues. . . | 270.5194 | 4148 |
| 24 Mar. (83) . . . | 3 Tues. . . | 23 58 12 | 28 Feb. (59) . . . | 0 Sat. . . | 146.2422 | 4149 |
| 24 Mar. (84) . . . | 5 Thur. . . | 6 10 21 | 18 Mar. (78) . . . | 6 Fri. . . | 180.9246 | 4150 |
| 24 Mar. (83) . . . | 6 Fri. . . | 12 22 30 | 7 Mar. (66) . . . | 3 Tues. . . | 56.6475 | 4151 |
| 24 Mar. (83) . . . | 0 Sat. . . | 18 34 39 | 25 Feb. (56) . . . | 1 Sun. . . | 271.0023 | 4152 |
| 25 Mar. (84) . . . | 2 Mon. . . | 0 46 48 | 16 Mar. (75) . . . | 0 Sat. . . | 305.6846 | 4153 |
| 24 Mar. (84) . . . | 3 Tues. . . | 6 58 57 | 4 Mar. (64) . . . | 4 Wed. . . | 181.4075 | 4154 |
| 24 Mar. (83) . . . | 4 Wed. . . | 13 11 6 | 23 Mar. (82) . . . | 3 Tues. . . | 216.0899 | 4155 |
| 24 Mar. (83) . . . | 5 Thur. . . | 19 23 15 | 12 Mar. (71) . . . | 0 Sat. . . | 91.8127 | 4156 |
| 25 Mar. (84) . . . | 0 Sat. . . | 1 35 24 | 2 Mar. (61) . . . | 5 Thur. . . | 306.1675 | 4157 |
| 24 Mar. (84) . . . | 1 Sun. . . | 7 47 33 | 19 Mar. (79) . . . | 3 Tues. . . | 2.2180 | 4158 |
| 24 Mar. (83) . . . | 2 Mon. . . | 13 59 42 | 9 Mar. (68) . . . | 1 Sun. . . | 216.5728 | 4159 |
| 24 Mar. (83) . . . | 3 Tues. . . | 20 11 51 | 26 Feb. (57) . . . | 5 Thur. . . | 92.2956 | 4160 |
| 25 Mar. (84) . . . | 5 Thur. . . | 2 24 0 | 17 Mar. (76) . . . | 4 Wed. . . | 126.9780 | 4161 |
| 24 Mar. (84) . . . | 6 Fri. . . | 8 36 9 | 5 Mar. (65) . . . | 1 Sun. . . | 2.7009 | 4162 |
| 24 Mar. (83) . . . | 0 Sat. . . | 14 48 18 | 23 Feb. (54) . . . | 6 Fri. . . | 217.0556 | 4163 |
| 24 Mar. (83) . . . | 1 Sun. . . | 21 0 27 | 14 Mar. (73) . . . | 5 Thur. . . | 251.7380 | 4164 |
| 25 Mar. (84) . . . | 3 Tues. . . | 3 12 36 | 3 Mar. (62) . . . | 2 Mon. . . | 127.4609 | 4165 |
| 24 Mar. (84) . . . | 4 Wed. . . | 9 24 45 | 21 Mar. (81) . . . | 1 Sun. . . | 162.1433 | 4166 |
| 24 Mar. (83) . . . | 5 Thur. . . | 15 36 54 | 10 Mar. (69) . . . | 5 Thur. . . | 37.8661 | 4167 |
| 24 Mar. (83) . . . | 6 Fri. . . | 21 49 3 | 28 Feb. (59) . . . | 3 Tues. . . | 252.2210 | 4168 |
| 25 Mar. (84) . . . | 1 Sun. . . | 4 1 12 | 19 Mar. (78) . . . | 2 Mon. . . | 286.9051 | 4169 |
| 24 Mar. (84) . . . | 2 Mon. . . | 10 13 21 | 7 Mar. (67) . . . | 6 Fri. . . | 162.6262 | 4170 |

TABLE

| CONCURRENT YEAR. | | | | | | | | |
|------------------|-------|--------------------|-------------------------------|---------|----------|--------------------|--------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | Mean intercalated (adhika) lunar month. |
| | | | | | | Southern system. | Northern system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4171 | 992 | 1127 | 476 | 244-45 | 1069-70 | 43 Saumya . | 45 Virōdhakṛit . | 2 Vaiśākha . |
| 4172 | 993 | 1128 | 477 | 245-46 | 1070-71 | 44 Sādhārāṇa . | 46 Paridhāvin . | ... |
| 4173 | 994 | 1129 | 478 | 246-47 | 1071-72 | 45 Virōdhakṛit . | 47 Pramādin . | 11 Māgha . |
| 4174 | 995 | 1130 | 479 | 247-48 | *1072-73 | 46 Paridhāvin . | 48 Ānanda . | ... |
| 4175 | 996 | 1131 | 480 | 248-49 | 1073-74 | 47 Pramādin . | 49 Rākshasa . | ... |
| 4176 | 997 | 1132 | 481 | 249-50 | 1074-75 | 48 Ānanda . | 50 Anala† . | 7 Āśvina . |
| 4177 | 998 | 1133 | 482 | 250-51 | 1075-76 | 49 Rākshasa . | 52 Kālayukta . | ... |
| 4178 | 999 | 1134 | 483 | 251-52 | *1076-77 | 50 Anala . | 53 Siddhārthin . | ... |
| 4179 | 1000 | 1135 | 484 | 252-53 | 1077-78 | 51 Piṅgala . | 54 Raudra . | 4 Āshādha . |
| 4180 | 1001 | 1136 | 485 | 253-54 | 1078-79 | 52 Kālayukta . | 55 Durmati . | ... |
| 4181 | 1002 | 1137 | 486 | 254-55 | 1079-80 | 53 Siddhārthin . | 56 Dundubhi . | 12 Phālguna . |
| 4182 | 1003 | 1138 | 487 | 255-56 | *1080-81 | 54 Raudra . | 57 Rudhirōdgārin . | ... |
| 4183 | 1004 | 1139 | 488 | 256-57 | 1081-82 | 55 Durmati . | 58 Raktāksha . | ... |
| 4184 | 1005 | 1140 | 489 | 257-58 | 1082-83 | 56 Dundubhi . | 59 Krōdhana . | 9 Mārgaśīra . |
| 4185 | 1006 | 1141 | 490 | 258-59 | 1083-84 | 57 Rudhirōdgārin . | 60 Kshaya . | ... |
| 4186 | 1007 | 1142 | 491 | 259-60 | *1084-85 | 58 Raktāksha . | 1 Prabhava . | ... |
| 4187 | 1008 | 1143 | 492 | 260-61 | 1085-86 | 59 Krōdhana . | 2 Vibhava . | 6 Bhādrapada . |
| 4188 | 1009 | 1144 | 493 | 261-62 | 1086-87 | 60 Kshaya . | 3 Śukla . | ... |
| 4189 | 1010 | 1145 | 494 | 262-63 | 1087-88 | 1 Prabhava . | 4 Pramōda . | ... |
| 4190 | 1011 | 1146 | 495 | 263-64 | *1088-89 | 2 Vibhava . | 5 Prajāpati . | 2 Vaiśākha . |
| 4191 | 1012 | 1147 | 496 | 264-65 | 1089-90 | 3 Śukla . | 6 Āngiras . | ... |
| 4192 | 1013 | 1148 | 497 | 265-66 | 1090-91 | 4 Pramōda . | 7 Śrīmukha . | 11 Māgha . |
| 4193 | 1014 | 1149 | 498 | 266-67 | 1091-92 | 5 Prajāpati . | 8 Bhāva . | ... |
| 4194 | 1015 | 1150 | 499 | 267-68 | *1092-93 | 6 Āngiras . | 9 Yuvan . | ... |
| 4195 | 1016 | 1151 | 500 | 268-69 | 1093-94 | 7 Śrīmukha . | 10 Dhātṛi . | 7 Āśvina . |

† 51 Piṅgala was suppressed in the north, according to both "true" and mean systems, in *Brahma-Siddhānta* reckoning.

XC—*contd.*

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | a (here $\rightarrow t$, the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 24 Mar. (83) . . . | 3 Tues. . . | 16 25 30 | 24 Feb. (55) . . . | 3 Tues. . . | 38-3490 | 4171 |
| 24 Mar. (83) . . . | 4 Wed. . . | 22 37 39 | 15 Mar. (74) . . . | 2 Mon. . . | 73-0314 | 4172 |
| 25 Mar. (84) . . . | 6 Fri. . . | 4 49 48 | 5 Mar. (64) . . . | 0 Sat. . . | 287-3863 | 4173 |
| 24 Mar. (84) . . . | 0 Sat. . . | 11 1 57 | 23 Mar. (83) . . . | 6 Fri. . . | 322-0086 | 4174 |
| 24 Mar. (83) . . . | 1 Sun. . . | 17 14 6 | 12 Mar. (71) . . . | 3 Tues. . . | 197-7915 | 4175 |
| 24 Mar. (83) . . . | 2 Mon. . . | 23 26 15 | 1 Mar. (60) . . . | 0 Sat. . . | 73-5143 | 4176 |
| 25 Mar. (84) . . . | 4 Wed. . . | 5 38 24 | 20 Mar. (79) . . . | 6 Fri. . . | 108-1907 | 4177 |
| 24 Mar. (84) . . . | 5 Thur. . . | 11 50 33 | 9 Mar. (69) . . . | 4 Wed. . . | 322-5515 | 4178 |
| 24 Mar. (83) . . . | 6 Fri. . . | 18 2 42 | 26 Feb. (57) . . . | 1 Sun. . . | 198-2744 | 4179 |
| 25 Mar. (84) . . . | 1 Sun. . . | 0 14 51 | 17 Mar. (76) . . . | 0 Sat. . . | 232-9568 | 4180 |
| 25 Mar. (84) . . . | 2 Mon. . . | 6 27 0 | 6 Mar. (65) . . . | 4 Wed. . . | 108-6796 | 4181 |
| 24 Mar. (84) . . . | 3 Tues. . . | 12 39 9 | 24 Mar. (84) . . . | 3 Tues. . . | 143-3620 | 4182 |
| 24 Mar. (83) . . . | 4 Wed. . . | 18 51 18 | 13 Mar. (72) . . . | 0 Sat. . . | 19-0848 | 4183 |
| 25 Mar. (84) . . . | 6 Fri. . . | 1 3 27 | 3 Mar. (62) . . . | 5 Thur. . . | 233-4397 | 4184 |
| 25 Mar. (84) . . . | 0 Sat. . . | 7 15 36 | 22 Mar. (81) . . . | 4 Wed. . . | 268-1220 | 4185 |
| 24 Mar. (84) . . . | 1 Sun. . . | 13 27 45 | 10 Mar. (70) . . . | 1 Sun. . . | 143-8449 | 4186 |
| 24 Mar. (83) . . . | 2 Mon. . . | 19 39 54 | 27 Feb. (58) . . . | 5 Thur. . . | 19-5678 | 4187 |
| 25 Mar. (84) . . . | 4 Wed. . . | 1 52 3 | 18 Mar. (77) . . . | 4 Wed. . . | 54-2501 | 4188 |
| 25 Mar. (84) . . . | 5 Thur. . . | 8 4 12 | 8 Mar. (67) . . . | 2 Mon. . . | 268-6050 | 4189 |
| 24 Mar. (84) . . . | 6 Fri. . . | 14 16 21 | 25 Feb. (56) . . . | 6 Fri. . . | 144-3278 | 4190 |
| 24 Mar. (83) . . . | 0 Sat. . . | 20 28 30 | 15 Mar. (74) . . . | 5 Thur. . . | 179-0102 | 4191 |
| 25 Mar. (84) . . . | 2 Mon. . . | 2 40 39 | 4 Mar. (63) . . . | 2 Mon. . . | 54-7330 | 4192 |
| 25 Mar. (84) . . . | 3 Tues. . . | 8 52 48 | 23 Mar. (82) . . . | 1 Sun. . . | 89-4154 | 4193 |
| 24 Mar. (84) . . . | 4 Wed. . . | 15 4 57 | 12 Mar. (72) . . . | 6 Fri. . . | 303-7703 | 4194 |
| 24 Mar. (83) . . . | 5 Thur. . . | 21 17 6 | 1 Mar. (60) . . . | 3 Tues. . . | 179-4930 | 4195 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|-----------|---------------------|---------------------|---|
| Kali. | Saka. | Chaitradī Vikrama. | Māshādī solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4196 | 1017 | 1152 | 501 | 269-70 | 1094-95 | 8 Bhāva . . | 11 Īśvara . . | ... |
| 4197 | 1018 | 1153 | 502 | 270-71 | 1095-96 | 9 Yavan . . | 12 Bahudhānya . | ... |
| 4198 | 1019 | 1154 | 503 | 271-72 | *1096-97 | 10 Dhātṛi . . | 13 Pramāthin . | 4 Āshāḍha . |
| 4199 | 1020 | 1155 | 504 | 272-73 | 1097-98 | 11 Īśvara . . | 14 Vikrama . . | ... |
| 4200 | 1021 | 1156 | 505 | 273-74 | 1098-99 | 12 Bahudhānya . | 15 Vṛisha . . | 12 Phālguna . |
| 4201 | 1022 | 1157 | 506 | 274-75 | 1099-1100 | 13 Pramāthin . | 16 Chitrabhānu . | ... |
| 4202 | 1023 | 1158 | 507 | 275-76 | *1100-01 | 14 Vikrama . . | 17 Subhānu . . | ... |
| 4203 | 1024 | 1159 | 508 | 276-77 | 1101-02 | 15 Vṛisha . . | 18 Tārāṇa . . | 9 Mārgasīra . |
| 4204 | 1025 | 1160 | 509 | 277-78 | 1102-03 | 16 Chitrabhānu . | 19 Pārthiva . . | ... |
| 4205 | 1026 | 1161 | 510 | 278-79 | 1103-04 | 17 Subhānu . . | 20 Vyaya . . | ... |
| 4206 | 1027 | 1162 | 511 | 279-80 | *1104-05 | 18 Tārāṇa . . | 21 Sarvajit . . | 5 Śrāvāṇa . |
| 4207 | 1028 | 1163 | 512 | 280-81 | 1105-06 | 19 Pārthiva . . | 22 Sarvadhārin . | ... |
| 4208 | 1029 | 1164 | 513 | 281-82 | 1106-07 | 20 Vyaya . . | 23 Virōdhin . . | ... |
| 4209 | 1030 | 1165 | 514 | 282-83 | 1107-08 | 21 Sarvajit . . | 24 Vikṛita . . | 2 Vaiśākha . |
| 4210 | 1031 | 1166 | 515 | 283-84 | *1108-09 | 22 Sarvadhārin . | 25 Khara . . | ... |
| 4211 | 1032 | 1167 | 516 | 284-85 | 1109-10 | 23 Virōdhin . . | 26 Nandana . . | 10 Pausa . |
| 4212 | 1033 | 1168 | 517 | 285-86 | 1110-11 | 24 Vikṛita . . | 27 Vijaya . . | ... |
| 4213 | 1034 | 1169 | 518 | 286-87 | 1111-12 | 25 Khara . . | 28 Jaya . . | ... |
| 4214 | 1035 | 1170 | 519 | 287-88 | *1112-13 | 26 Nandana . . | 29 Maṇmatha . . | 7 Āśvina . |
| 4215 | 1036 | 1171 | 520 | 288-89 | 1113-14 | 27 Vijaya . . | 30 Durmukha . . | ... |
| 4216 | 1037 | 1172 | 521 | 289-90 | 1114-15 | 28 Jaya . . | 31 Hēmalamba . | ... |
| 4217 | 1038 | 1173 | 522 | 290-91 | 1115-16 | 29 Maṇmatha . . | 32 Vilamba . . | 3 Jyēṣṭha . |
| 4218 | 1039 | 1174 | 523 | 291-92 | *1116-17 | 30 Durmukha . . | 33 Vikārin . . | ... |
| 4219 | 1040 | 1175 | 524 | 292-93 | 1117-18 | 31 Hēmalamba . | 34 Śārvarin . . | 12 Phālguna . |
| 4220 | 1041 | 1176 | 525 | 293-94 | 1118-19 | 32 Vilamba . . | 35 Plava . . | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 25 Mar. (84) . . . | 0 Sat. . . | 3 29 15 | 20 Mar. (79) . . | 2 Mon. . . | 214·1755 | 4196 |
| 25 Mar. (84) . . . | 1 Sun. . . | 9 41 24 | 9 Mar. (68) . . | 6 Fri. . . | 89·8983 | 4197 |
| 24 Mar. (84) . . . | 2 Mon. . . | 15 53 33 | 27 Feb. (58) . . | 4 Wed. . . | 304·2531 | 4198 |
| 24 Mar. (83) . . . | 3 Tues. . . | 22 5 42 | 16 Mar. (75) . . | 2 Mon. . . | 0·3035 | 4199 |
| 25 Mar. (84) . . . | 5 Thur. . . | 4 17 51 | 6 Mar. (65) . . | 0 Sat. . . | 214·6584 | 4200 |
| 25 Mar. (84) . . . | 6 Fri. . . | 10 30 0 | 25 Mar. (84) . . | 6 Fri. . . | 249·3408 | 4201 |
| 24 Mar. (84) . . . | 0 Sat. . . | 16 42 9 | 13 Mar. (73) . . | 3 Tues. . . | 125·0637 | 4202 |
| 24 Mar. (83) . . . | 1 Sun. . . | 22 54 18 | 2 Mar. (61) . . | 0 Sat. . . | 0·7865 | 4203 |
| 25 Mar. (84) . . . | 3 Tues. . . | 5 6 27 | 21 Mar. (80) . . | 6 Fri. . . | 35·4689 | 4204 |
| 25 Mar. (84) . . . | 4 Wed. . . | 11 18 36 | 11 Mar. (70) . . | 4 Wed. . . | 249·8237 | 4205 |
| 24 Mar. (84) . . . | 5 Thur. . . | 17 30 45 | 28 Feb. (59) . . | 1 Sun. . . | 125·5466 | 4206 |
| 24 Mar. (83) . . . | 6 Fri. . . | 23 42 54 | 18 Mar. (77) . . | 0 Sat. . . | 160·2289 | 4207 |
| 25 Mar. (84) . . . | 1 Sun. . . | 5 55 3 | 7 Mar. (66) . . | 4 Wed. . . | 35·9318 | 4208 |
| 25 Mar. (84) . . . | 2 Mon. . . | 12 7 12 | 25 Feb. (56) . . | 2 Mon. . . | 250·3066 | 4209 |
| 24 Mar. (84) . . . | 3 Tues. . . | 18 19 21 | 15 Mar. (75) . . | 1 Sun. . . | 284·9889 | 4210 |
| 25 Mar. (84) . . . | 5 Thur. . . | 0 31 30 | 4 Mar. (63) . . | 5 Thur. . . | 160·7118 | 4211 |
| 25 Mar. (84) . . . | 6 Fri. . . | 6 43 39 | 23 Mar. (82) . . | 4 Wed. . . | 195·3942 | 4212 |
| 25 Mar. (84) . . . | 0 Sat. . . | 12 55 48 | 12 Mar. (71) . . | 1 Sun. . . | 71·1171 | 4213 |
| 24 Mar. (84) . . . | 1 Sun. . . | 19 7 57 | 1 Mar. (61) . . | 6 Fri. . . | 285·4718 | 4214 |
| 25 Mar. (84) . . . | 3 Tues. . . | 1 20 6 | 20 Mar. (79) . . | 5 Thur. . . | 320·1543 | 4215 |
| 25 Mar. (84) . . . | 4 Wed. . . | 7 32 15 | 9 Mar. (68) . . | 2 Mon. . . | 195·8771 | 4216 |
| 25 Mar. (84) . . . | 5 Thur. . . | 13 44 24 | 26 Feb. (57) . . | 6 Fri. . . | 71·5999 | 4217 |
| 24 Mar. (84) . . . | 6 Fri. . . | 19 56 33 | 16 Mar. (76) . . | 5 Thur. . . | 106·2823 | 4218 |
| 25 Mar. (84) . . . | 1 Sun. . . | 2 8 42 | 6 Mar. (65) . . | 3 Tues. . . | 320·6372 | 4219 |
| 25 Mar. (84) . . . | 2 Mon. . . | 8 20 51 | 24 Mar. (83) . . | 1 Sun. . . | 16·6876 | 4220 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēghādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4221 | 1042 | 1177 | 526 | 294-95 | 1119-20 | 33 Vikārin . | 36 Śubhakṛit . | ... |
| 4222 | 1043 | 1178 | 527 | 295-96 | *1120-21 | 34 Śārvarin . | 37 Śōbhana . | 8 Kārttika . |
| 4223 | 1044 | 1179 | 528 | 296-97 | 1121-22 | 35 Plava . | 38 Krōdhin . | ... |
| 4224 | 1045 | 1180 | 529 | 297-98 | 1122-23 | 36 Śubhakṛit . | 39 Viśvāvasan . | ... |
| 4225 | 1046 | 1181 | 530 | 298-99 | 1123-24 | 37 Śōbhana . | 40 Parābhava . | 5 Srāvaṇa . |
| 4226 | 1047 | 1182 | 531 | 299-300 | *1124-25 | 38 Krōdhin . | 41 Plavaṅga . | ... |
| 4227 | 1048 | 1183 | 532 | 300-01 | 1125-26 | 39 Viśvāvasan . | 42 Kīlaka . | ... |
| 4228 | 1049 | 1184 | 533 | 301-02 | 1126-27 | 40 Parābhava . | 43 Saumya . | 2 Vaiśākha . |
| 4229 | 1050 | 1185 | 534 | 302-03 | 1127-28 | 41 Plavaṅga . | 44 Sādhārana . | ... |
| 4230 | 1051 | 1186 | 535 | 303-04 | *1128-29 | 42 Kīlaka . | 45 Virōdhakṛit . | 10 Pansha . |
| 4231 | 1052 | 1187 | 536 | 304-05 | 1129-30 | 43 Saumya . | 46 Paridhāvin . | ... |
| 4232 | 1053 | 1188 | 537 | 305-06 | 1130-31 | 44 Sādhārana . | 47 Pramādin . | ... |
| 4233 | 1054 | 1189 | 538 | 306-07 | 1131-32 | 45 Virōdhakṛit . | 48 Ānanda . | 7 Āśvina . |
| 4234 | 1055 | 1190 | 539 | 307-08 | *1132-33 | 46 Paridhāvin . | 49 Rākshasa . | ... |
| 4235 | 1056 | 1191 | 540 | 308-09 | 1133-34 | 47 Pramādin . | 50 Anala . | ... |
| 4236 | 1057 | 1192 | 541 | 309-10 | 1134-35 | 48 Ānanda . | 51 Piṅgala . | 3 Jyēṣṭha . |
| 4237 | 1058 | 1193 | 542 | 310-11 | 1135-36 | 49 Rākshasa . | 52 Kālayukta . | ... |
| 4238 | 1059 | 1194 | 543 | 311-12 | *1136-37 | 50 Anala . | 53 Siddhārthin . | 12 Phālguna . |
| 4239 | 1060 | 1195 | 544 | 312-13 | 1137-38 | 51 Piṅgala . | 54 Raudra . | ... |
| 4240 | 1061 | 1196 | 545 | 313-14 | 1138-39 | 52 Kālayukta . | 55 Durmati . | ... |
| 4241 | 1062 | 1197 | 546 | 314-15 | 1139-40 | 53 Siddhārthin . | 56 Dundubhi . | 8 Kārttika . |
| 4242 | 1063 | 1198 | 547 | 315-16 | *1140-41 | 54 Raudra . | 57 Rudhirōdgārin . | ... |
| 4243 | 1064 | 1199 | 548 | 316-17 | 1141-42 | 55 Durmati . | 58 Raktāksha . | ... |
| 4244 | 1065 | 1200 | 549 | 317-18 | 1142-43 | 56 Dundubhi . | 59 Krōdhana . | 5 Srāvaṇa . |
| 4245 | 1066 | 1201 | 550 | 318-19 | 1143-44 | 57 Rudhirōdgārin . | 60 Kshaya . | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|--------------|-------------------------------|---|--------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-sankrānti. | Day and month, A.D. | Week-day. | a (here = t , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 25 Mar. (84) . . . | 3 Tues. . . | 14 33 0 | 14 Mar. (73) . . . | 6 Fri. . . | 231·0424 | 4221 |
| 24 Mar. (84) . . . | 4 Wed. . . | 20 45 9 | 2 Mar. (62) . . . | 3 Tues. . . | 106·7652 | 4222 |
| 25 Mar. (84) . . . | 6 Fri. . . | 2 57 18 | 21 Mar. (80) . . . | 2 Mon. . . | 141·4477 | 4223 |
| 25 Mar. (84) . . . | 0 Sat. . . | 9 9 27 | 10 Mar. (69) . . . | 6 Fri. . . | 17·1704 | 4224 |
| 25 Mar. (84) . . . | 1 Sun. . . | 15 21 36 | 28 Feb. (59) . . . | 4 Wed. . . | 231·5253 | 4225 |
| 24 Mar. (84) . . . | 2 Mon. . . | 21 33 45 | 18 Mar. (78) . . . | 3 Tues. . . | 266·2077 | 4226 |
| 25 Mar. (84) . . . | 4 Wed. . . | 3 45 54 | 7 Mar. (66) . . . | 0 Sat. . . | 141·9306 | 4227 |
| 25 Mar. (84) . . . | 5 Thurs. . . | 9 58 3 | 24 Feb. (55) . . . | 4 Wed. . . | 17·6533 | 4228 |
| 25 Mar. (84) . . . | 6 Fri. . . | 16 10 12 | 15 Mar. (74) . . . | 3 Tues. . . | 52·3357 | 4229 |
| 24 Mar. (84) . . . | 0 Sat. . . | 22 22 21 | 4 Mar. (64) . . . | 1 Sun. . . | 266·6906 | 4230 |
| 25 Mar. (84) . . . | 2 Mon. . . | 4 34 30 | 23 Mar. (82) . . . | 0 Sat. . . | 301·3729 | 4231 |
| 25 Mar. (84) . . . | 3 Tues. . . | 10 46 30 | 12 Mar. (71) . . . | 4 Wed. . . | 177·0058 | 4232 |
| 25 Mar. (84) . . . | 4 Wed. . . | 16 58 48 | 1 Mar. (60) . . . | 1 Sun. . . | 52·8186 | 4233 |
| 24 Mar. (84) . . . | 5 Thurs. . . | 23 10 57 | 19 Mar. (79) . . . | 0 Sat. . . | 87·5011 | 4234 |
| 25 Mar. (84) . . . | 0 Sat. . . | 5 23 6 | 9 Mar. (68) . . . | 5 Thurs. . . | 301·8558 | 4235 |
| 25 Mar. (84) . . . | 1 Sun. . . | 11 35 15 | 26 Feb. (57) . . . | 2 Mon. . . | 177·5787 | 4236 |
| 25 Mar. (84) . . . | 2 Mon. . . | 17 47 24 | 17 Mar. (76) . . . | 1 Sun. . . | 212·2611 | 4237 |
| 24 Mar. (84) . . . | 3 Tues. . . | 23 59 33 | 5 Mar. (65) . . . | 5 Thurs. . . | 87·9840 | 4238 |
| 25 Mar. (84) . . . | 5 Thurs. . . | 6 11 42 | 24 Mar. (83) . . . | 4 Wed. . . | 122·6663 | 4239 |
| 25 Mar. (84) . . . | 6 Fri. . . | 12 23 51 | 13 Mar. (72) . . . | 1 Sun. . . | 9998·8892 § | 4240 |
| 25 Mar. (84) . . . | 0 Sat. . . | 18 36 0 | 3 Mar. (62) . . . | 6 Fri. . . | 212·7440 | 4241 |
| 25 Mar. (85) . . . | 2 Mon. . . | 0 48 9 | 21 Mar. (81) . . . | 5 Thurs. . . | 217·4264 | 4242 |
| 25 Mar. (84) . . . | 3 Tues. . . | 7 0 18 | 10 Mar. (69) . . . | 2 Mon. . . | 123·0492 | 4243 |
| 25 Mar. (84) . . . | 4 Wed. . . | 13 12 27 | 27 Feb. (58) . . . | 6 Fri. . . | 9998·8721 § | 4244 |
| 25 Mar. (84) . . . | 5 Thurs. . . | 19 24 36 | 18 Mar. (77) . . . | 5 Thurs. . . | 33·5545 | 4245 |

§ Chaitra sukla 1 was suppressed.

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4246 | 1067 | 1202 | 551 | 319-20 | *1144-45 | 58 Raktāksha . | 1 Prabhava . | ... |
| 4247 | 1068 | 1203 | 552 | 320-21 | 1145-46 | 59 Krōdhana . | 2 Vibhava . | 1 Chaitra . |
| 4248 | 1069 | 1204 | 553 | 321-22 | 1146-47 | 60 Kshaya . | 3 Śukla . | ... |
| 4249 | 1070 | 1205 | 554 | 322-23 | 1147-48 | 1 Prabhava . | 4 Pramōda . | 10 Pausa . |
| 4250 | 1071 | 1206 | 555 | 323-24 | *1148-49 | 2 Vibhava . | 5 Prajāpati . | ... |
| 4251 | 1072 | 1207 | 556 | 324-25 | 1149-50 | 3 Śukla . | 6 Āngiras . | ... |
| 4252 | 1073 | 1208 | 557 | 325-26 | 1150-51 | 4 Pramōda . | 7 Śrīmukha . | 6 Bhādrapada . |
| 4253 | 1074 | 1209 | 558 | 326-27 | 1151-52 | 5 Prajāpati . | 8 Bhāva . | ... |
| 4254 | 1075 | 1210 | 559 | 327-28 | *1152-53 | 6 Āngiras . | 9 Yuvan . | ... |
| 4255 | 1076 | 1211 | 560 | 328-29 | 1153-54 | 7 Śrīmukha . | 10 Dhātṛi . | 3 Jyēṣṭha . |
| 4256 | 1077 | 1212 | 561 | 329-30 | 1154-55 | 8 Bhāva . | 11 Isvara . | ... |
| 4257 | 1078 | 1213 | 562 | 330-31 | 1155-56 | 9 Yuvan . | 12 Bahudhānya . | 11 Māgha . |
| 4258 | 1079 | 1214 | 563 | 331-32 | *1156-57 | 10 Dhātṛi . | 13 Pramāthin . | ... |
| 4259 | 1080 | 1215 | 564 | 332-33 | 1157-58 | 11 Isvara . | 14 Vikrama . | ... |
| 4260 | 1081 | 1216 | 565 | 333-34 | 1158-59 | 12 Bahudhānya . | 15 Vṛisha . | 8 Kārttika . |
| 4261 | 1082 | 1217 | 566 | 334-35 | 1159-60 | 13 Pramāthin . | 16 Chitrabhānu† . | ... |
| 4262 | 1083 | 1218 | 567 | 335-36 | *1160-61 | 14 Vikrama . | 18 Tāraṇa . | ... |
| 4263 | 1084 | 1219 | 568 | 336-37 | 1161-62 | 15 Vṛisha . | 19 Pārthiva . | 5 Śrāvaṇa . |
| 4264 | 1085 | 1220 | 569 | 337-38 | 1162-63 | 16 Chitrabhānu . | 20 Vyaya . | ... |
| 4265 | 1086 | 1221 | 570 | 338-39 | 1163-64 | 17 Subhānu . | 21 Sarvajit . | ... |
| 4266 | 1087 | 1222 | 571 | 339-40 | *1164-65 | 18 Tāraṇa . | 22 Sarvadhārin . | 1 Chaitra . |
| 4267 | 1088 | 1223 | 572 | 340-41 | 1165-66 | 19 Pārthiva . | 23 Virōdhin . | ... |
| 4268 | 1089 | 1224 | 573 | 341-42 | 1166-67 | 20 Vyaya . | 24 Vikṛita . | 10 Pausa . |
| 4269 | 1090 | 1225 | 574 | 342-43 | 1167-68 | 21 Sarvajit . | 25 Kbara . | ... |
| 4270 | 1091 | 1226 | 575 | 343-44 | *1168-69 | 22 Sarvadhārin . | 26 Nandana . | ... |

† 17 Subhānu was suppressed in the north by the *Brahma-Siddhānta*, both in true and mean reckoning.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|--------------|---------------------------------|---|-------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITHA ÉUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-sarinkrānti. | Day and month, A.D. | Week-day. | α (here = t , the index of the $tikh$). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 25 Mar. (85) . . . | 0 Sat. . . | 1 36 45 | 7 Mar. (67) . . . | 3 Tues. . . | 247-9093 | 4246 |
| 25 Mar. (84) . . . | 1 Sun. . . | 7 48 54 | 24 Feb. (55) . . . | 0 Sat. . . | 123-6321 | 4247 |
| 25 Mar. (84) . . . | 2 Mon. . . | 14 1 3 | 15 Mar. (74) . . . | 6 Fri. . . | 158-3145 | 4248 |
| 25 Mar. (84) . . . | 3 Tues. . . | 20 13 12 | 4 Mar. (63) . . . | 3 Tues. . . | 34-0373 | 4249 |
| 25 Mar. (85) . . . | 5 Thurs. . . | 2 25 21 | 22 Mar. (82) . . . | 2 Mon. . . | 68-7197 | 4250 |
| 25 Mar. (84) . . . | 6 Fri. . . | 8 37 30 | 12 Mar. (71) . . . | 0 Sat. . . | 283-0746 | 4251 |
| 25 Mar. (84) . . . | 0 Sat. . . | 14 49 39 | 1 Mar. (60) . . . | 4 Wed. . . | 158-7974 | 4252 |
| 25 Mar. (84) . . . | 1 Sun. . . | 21 1 48 | 20 Mar. (79) . . . | 3 Tues. . . | 193-4798 | 4253 |
| 25 Mar. (85) . . . | 3 Tues. . . | 3 13 57 | 8 Mar. (68) . . . | 0 Sat. . . | 69-2026 | 4254 |
| 25 Mar. (84) . . . | 4 Wed. . . | 9 26 6 | 26 Feb. (57) . . . | 5 Thur. . . | 283-5575 | 4255 |
| 25 Mar. (84) . . . | 5 Thur. . . | 15 38 15 | 17 Mar. (76) . . . | 4 Wed. . . | 318-2398 | 4256 |
| 25 Mar. (84) . . . | 6 Fri. . . | 21 50 24 | 6 Mar. (65) . . . | 1 Sun. . . | 193-9627 | 4257 |
| 25 Mar. (85) . . . | 1 Sun. . . | 4 2 38 | 24 Mar. (84) . . . | 0 Sat. . . | 228-6451 | 4258 |
| 25 Mar. (84) . . . | 2 Mon. . . | 10 14 42 | 13 Mar. (72) . . . | 4 Wed. . . | 104-3680 | 4259 |
| 25 Mar. (84) . . . | 3 Tues. . . | 16 26 51 | 3 Mar. (62) . . . | 2 Mon. . . | 318-7227 | 4260 |
| 25 Mar. (84) . . . | 4 Wed. . . | 22 39 0 | 21 Mar. (80) . . . | 0 Sat. . . | 14-7731 | 4261 |
| 25 Mar. (85) . . . | 6 Fri. . . | 4 51 9 | 10 Mar. (70) . . . | 5 Thur. . . | 229-1280 | 4262 |
| 25 Mar. (84) . . . | 0 Sat. . . | 11 3 18 | 27 Feb. (58) . . . | 2 Mon. . . | 104-8508 | 4263 |
| 25 Mar. (84) . . . | 1 Sun. . . | 17 15 27 | 18 Mar. (77) . . . | 1 Sun. . . | 139-5332 | 4264 |
| 25 Mar. (84) . . . | 2 Mon. . . | 23 27 36 | 7 Mar. (66) . . . | 5 Thur. . . | 15-2561 | 4265 |
| 25 Mar. (85) . . . | 4 Wed. . . | 5 39 45 | 25 Feb. (56) . . . | 3 Tues. . . | 229-6109 | 4266 |
| 25 Mar. (84) . . . | 5 Thur. . . | 11 51 54 | 15 Mar. (74) . . . | 2 Mon. . . | 264-2932 | 4267 |
| 25 Mar. (84) . . . | 6 Fri. . . | 18 4 3 | 4 Mar. (63) . . . | 6 Fri. . . | 140-0161 | 4268 |
| 26 Mar. (85) . . . | 1 Sun. . . | 0 16 12 | 23 Mar. (82) . . . | 5 Tues. . . | 174-6985 | 4269 |
| 25 Mar. (85) . . . | 2 Mon. . . | 6 28 21 | 11 Mar. (71) . . . | 2 Mon. . . | 50-1213 | 4270 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
into calated
(adhika) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|--|
| Kuli. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4271 | 1092 | 1227 | 576 | 344-45 | 1169-70 | 23 Virōdhin . | 27 Vijaya . | 6 Bhādrapada . |
| 4272 | 1093 | 1228 | 577 | 345-46 | 1170-71 | 24 Vikṛita . | 28 Jaya . | ... |
| 4273 | 1094 | 1229 | 578 | 346-47 | 1171-72 | 25 Khara . | 29 Manmatha . | ... |
| 4274 | 1095 | 1230 | 579 | 347-48 | *1172-73 | 26 Nandana . | 30 Darmukha . | 3 Jyēshṭha . |
| 4275 | 1096 | 1231 | 580 | 348-49 | 1173-74 | 27 Vijaya . | 31 Hēmalamba . | ... |
| 4276 | 1097 | 1232 | 581 | 349-50 | 1174-75 | 28 Jaya . | 32 Vilamba . | 11 Māgha . |
| 4277 | 1098 | 1233 | 582 | 350-51 | 1175-76 | 29 Manmatha . | 33 Vikārin . | ... |
| 4278 | 1099 | 1234 | 583 | 351-52 | *1176-77 | 30 Darmukha . | 34 Śārvarin . | ... |
| 4279 | 1100 | 1235 | 584 | 352-53 | 1177-78 | 31 Hēmalamba . | 35 Plava . | 8 Kārttika . |
| 4280 | 1101 | 1236 | 585 | 353-54 | 1178-79 | 32 Vilamba . | 36 Śubhakṛit . | ... |
| 4281 | 1102 | 1237 | 586 | 354-55 | 1179-80 | 33 Vikārin . | 37 Śōbhana . | ... |
| 4282 | 1103 | 1238 | 587 | 355-56 | *1180-81 | 34 Śārvarin . | 38 Krōdhin . | 4 Āshāḍha . |
| 4283 | 1104 | 1239 | 588 | 356-57 | 1181-82 | 35 Plava . | 39 Viśvāvasu . | ... |
| 4284 | 1105 | 1240 | 589 | 357-58 | 1182-83 | 36 Śubhakṛit . | 40 Parābhava . | ... |
| 4285 | 1106 | 1241 | 590 | 358-59 | 1183-84 | 37 Śōbhana . | 41 Plavaṅga . | 1 Chaitra . |
| 4286 | 1107 | 1242 | 591 | 359-60 | *1184-85 | 38 Krōdhin . | 42 Kilaka . | ... |
| 4287 | 1108 | 1243 | 592 | 360-61 | 1185-86 | 39 Viśvāvasu . | 43 Saumya . | 9 Mārgaśīra . |
| 4288 | 1109 | 1244 | 593 | 361-62 | 1186-87 | 40 Parābhava . | 44 Sādhāraṇa . | ... |
| 4289 | 1110 | 1245 | 594 | 362-63 | 1187-88 | 41 Plavaṅga . | 45 Virōdhakṛit . | ... |
| 4290 | 1111 | 1246 | 595 | 363-64 | *1188-89 | 42 Kilaka . | 46 Paridhāvin . | 6 Bhādrapada . |
| 4291 | 1112 | 1247 | 596 | 364-65 | 1189-90 | 43 Saumya . | 47 Pramādin . | ... |
| 4292 | 1113 | 1248 | 597 | 365-66 | 1190-91 | 44 Sādhāraṇa . | 48 Ānanda . | ... |
| 4293 | 1114 | 1249 | 598 | 366-67 | 1191-92 | 45 Virōdhakṛit . | 49 Rākṣasa . | 2 Vaiśākha . |
| 4294 | 1115 | 1250 | 599 | 367-68 | *1192-93 | 46 Paridhāvin . | 50 Anala . | ... |
| 4295 | 1116 | 1251 | 600 | 368-69 | 1193-94 | 47 Pramādin . | 51 Piṅgalā . | 11 Māgha . |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---------------------------------------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the ti/Āi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 25 Mar. (84) . . . | 3 Tues. . . | 12 40 30 | 1 Mar. (80) . . . | 0 Sat. . . | 264-7762 | 4271 |
| 25 Mar. (84) . . . | 4 Wed. . . | 18 52 39 | 20 Mar. (79) . . . | 6 Fri. . . | 299-4586 | 4272 |
| 26 Mar. (85) . . . | 6 Fri. . . | 1 4 48 | 9 Mar. (68) . . . | 3 Tues. . . | 175-1815 | 4273 |
| 25 Mar. (85) . . . | 0 Sat. . . | 7 16 57 | 28 Feb. (57) . . . | 0 Sat. . . | 50-9042 | 4274 |
| 25 Mar. (84) . . . | 1 Sun. . . | 13 29 6 | 16 Mar. (75) . . . | 6 Fri. . . | 85-5866 | 4275 |
| 25 Mar. (84) . . . | 2 Mon. . . | 19 41 15 | 6 Mar. (65) . . . | 4 Wed. . . | 299-9415 | 4276 |
| 26 Mar. (85) . . . | 4 Wed. . . | 1 53 24 | 24 Mar. (83) . . . | 2 Mon. . . | 9995-9918 § | 4277 |
| 25 Mar. (85) . . . | 5 Thur. . . | 8 5 33 | 13 Mar. (73) . . . | 0 Sat. . . | 210-3467 | 4278 |
| 25 Mar. (84) . . . | 6 Fri. . . | 14 17 42 | 2 Mar. (61) . . . | 4 Wed. . . | 86-0695 | 4279 |
| 25 Mar. (84) . . . | 0 Sat. . . | 20 29 51 | 21 Mar. (80) . . . | 3 Tues. . . | 120-7519 | 4280 |
| 26 Mar. (85) . . . | 2 Mon. . . | 2 42 0 | 10 Mar. (69) . . . | 0 Sat. . . | 9996-4747 § | 4281 |
| 25 Mar. (85) . . . | 3 Tues. . . | 8 54 9 | 28 Feb. (59) . . . | 5 Thur. . . | 210-8296 | 4282 |
| 25 Mar. (84) . . . | 4 Wed. . . | 15 6 18 | 18 Mar. (77) . . . | 4 Wed. . . | 245-5120 | 4283 |
| 25 Mar. (84) . . . | 5 Thur. . . | 21 18 27 | 7 Mar. (66) . . . | 1 Sun. . . | 121-2349 | 4284 |
| 26 Mar. (85) . . . | 0 Sat. . . | 3 30 36 | 24 Feb. (55) . . . | 5 Thur. . . | 9996-9576 § | 4285 |
| 25 Mar. (85) . . . | 1 Sun. . . | 9 42 45 | 14 Mar. (74) . . . | 4 Wed. . . | 31-0400 | 4286 |
| 25 Mar. (84) . . . | 2 Mon. . . | 15 54 54 | 4 Mar. (63) . . . | 2 Mon. . . | 245-9949 | 4287 |
| 25 Mar. (84) . . . | 3 Tues. . . | 22 7 3 | 23 Mar. (82) . . . | 1 Sun. . . | 280-6772 | 4288 |
| 26 Mar. (85) . . . | 5 Thur. . . | 4 19 12 | 12 Mar. (71) . . . | 5 Thur. . . | 156-4061 | 4289 |
| 25 Mar. (85) . . . | 6 Fri. . . | 10 31 21 | 29 Feb. (60) . . . | 2 Mon. . . | 32-1230 | 4290 |
| 25 Mar. (84) . . . | 0 Sat. . . | 16 43 30 | 19 Mar. (78) . . . | 1 Sun. . . | 66-8054 | 4291 |
| 25 Mar. (84) . . . | 1 Sun. . . | 22 55 39 | 9 Mar. (68) . . . | 6 Fri. . . | 281-1602 | 4292 |
| 26 Mar. (85) . . . | 3 Tues. . . | 5 7 48 | 28 Feb. (57) . . . | 3 Tues. . . | 156-8830 | 4293 |
| 25 Mar. (85) . . . | 4 Wed. . . | 11 19 57 | 16 Mar. (70) . . . | 2 Mon. . . | 191-5654 | 4294 |
| 25 Mar. (84) . . . | 5 Thur. . . | 17 32 6 | 5 Mar. (64) . . . | 6 Fri. . . | 67-2882 | 4295 |

§ Chaitra śukla 1 was suppressed.

TABLE

| CONCURRENT YEAR. | | | | | | | | |
|------------------|-------|--------------------|-------------------------------|---------|-----------|--------------------|--------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | Mean intercalated (adhika) lunar month. |
| | | | | | | Southern system. | Northern system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4296 | 1117 | 1252 | 601 | 369-70 | 1194-95 | 48 Ananda . | 52 Kālayukta . | ... |
| 4297 | 1118 | 1253 | 602 | 370-71 | 1195-96 | 49 Rākshasa . | 53 Siddhāsthin . | ... |
| 4298 | 1119 | 1254 | 603 | 371-72 | *1196-97 | 50 Anala . | 54 Raudra . | 8 Kārttika † . |
| 4299 | 1120 | 1255 | 604 | 372-73 | 1197-98 | 51 Piṅgala . | 55 Durmati . | ... |
| 4300 | 1121 | 1256 | 605 | 373-74 | 1198-99 | 52 Kālayukta . | 56 Dundubhi . | ... |
| 4301 | 1122 | 1257 | 606 | 374-75 | 1199-1200 | 53 Siddhārthin . | 57 Rudhirōdgārin . | 4 Āshāḍha . |
| 4302 | 1123 | 1258 | 607 | 375-76 | *1200-01 | 54 Raudra . | 58 Raktāksha . | ... |
| 4303 | 1124 | 1259 | 608 | 376-77 | 1201-02 | 55 Durmati . | 59 Krōdhana . | ... |
| 4304 | 1125 | 1260 | 609 | 377-78 | 1202-03 | 56 Dundubhi . | 60 Keshava . | 1 Chaitra . |
| 4305 | 1126 | 1261 | 610 | 378-79 | 1203-04 | 57 Rudhirōdgārin . | 1 Prabhava . | ... |
| 4306 | 1127 | 1262 | 611 | 379-80 | *1204-05 | 58 Raktāksha . | 2 Vibhava . | 9 Mārgaśīra . |
| 4307 | 1128 | 1263 | 612 | 380-81 | 1205-06 | 59 Krōdhana . | 3 Śukla . | ... |
| 4308 | 1129 | 1264 | 613 | 381-82 | 1206-07 | 60 Keshava . | 4 Pramōda . | ... |
| 4309 | 1130 | 1265 | 614 | 382-83 | 1207-08 | 1 Prabhava . | 5 Prajāpati . | 6 Bhādrapada . |
| 4310 | 1131 | 1266 | 615 | 383-84 | *1208-09 | 2 Vibhava . | 6 Aṅgīra . | ... |
| 4311 | 1132 | 1267 | 616 | 384-85 | 1209-10 | 3 Śukla . | 7 Śrīmukha . | ... |
| 4312 | 1133 | 1268 | 617 | 385-86 | 1210-11 | 4 Pramōda . | 8 Bhāva . | 2 Vaiśākha . |
| 4313 | 1134 | 1269 | 618 | 386-87 | 1211-12 | 5 Prajāpati . | 9 Yuvan . | ... |
| 4314 | 1135 | 1270 | 619 | 387-88 | *1212-13 | 6 Aṅgīra . | 10 Dhātṛi . | 11 Māgha . |
| 4315 | 1136 | 1271 | 620 | 388-89 | 1213-14 | 7 Śrīmukha . | 11 Īśvara . | ... |
| 4316 | 1137 | 1272 | 621 | 389-90 | 1214-15 | 8 Bhāva . | 12 Bahudhānya . | ... |
| 4317 | 1138 | 1273 | 622 | 390-91 | 1215-16 | 9 Yuvan . | 13 Pramāsthin . | 7 Āśvina . |
| 4318 | 1139 | 1274 | 623 | 391-92 | *1216-17 | 10 Dhātṛi . | 14 Vikrama . | ... |
| 4319 | 1140 | 1275 | 624 | 392-93 | 1217-18 | 11 Īśvara . | 15 Vṛiṣha . | ... |
| 4320 | 1141 | 1276 | 625 | 393-94 | 1218-19 | 12 Bahudhānya . | 16 Chitrabhānu . | 4 Āshāḍha . |

† See "Remarks," p. 215 above.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|--|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṅkrānti. | Day and month, A.D. | Week-day. | α (here $\sim t$, the index of the <i>tithi</i>). | |
| 18 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 25 Mar. (84) . . . | 6 Fri. . . | 23 44 15 | 24 Mar. (83) . . . | 5 Thur. . . | 101.9706 | 4296 |
| 26 Mar. (85) . . . | 1 Sun. . . | 5 56 24 | 14 Mar. (73) . . . | 3 Tues. . . | 316.3255 | 4297 |
| 25 Mar. (85) . . . | 2 Mon. . . | 12 8 33 | 2 Mar. (62) . . . | 0 Sat. . . | 192.0182 | 4298 |
| 25 Mar. (84) . . . | 3 Tues. . . | 18 20 42 | 21 Mar. (80) . . . | 6 Fri. . . | 226.7307 | 4299 |
| 26 Mar. (85) . . . | 5 Thur. . . | 0 32 51 | 10 Mar. (69) . . . | 3 Tues. . . | 102.4535 | 4300 |
| 26 Mar. (85) . . . | 6 Fri. . . | 6 45 0 | 28 Feb. (59) . . . | 1 Sun. . . | 316.8083 | 4301 |
| 25 Mar. (85) . . . | 0 Sat. . . | 12 57 9 | 17 Mar. (77) . . . | 6 Fri. . . | 12.8587 | 4302 |
| 25 Mar. (84) . . . | 1 Sun. . . | 19 9 18 | 7 Mar. (66) . . . | 4 Wed. . . | 227.2136 | 4303 |
| 26 Mar. (85) . . . | 3 Tues. . . | 1 21 27 | 24 Feb. (55) . . . | 1 Sun. . . | 102.9363 | 4304 |
| 26 Mar. (85) . . . | 4 Wed. . . | 7 33 36 | 15 Mar. (74) . . . | 0 Sat. . . | 137.6188 | 4305 |
| 25 Mar. (85) . . . | 5 Thur. . . | 13 45 45 | 3 Mar. (63) . . . | 4 Wed. . . | 13.3416 | 4306 |
| 25 Mar. (84) . . . | 6 Fri. . . | 19 57 54 | 22 Mar. (81) . . . | 3 Tues. . . | 48.0239 | 4307 |
| 26 Mar. (85) . . . | 1 Sun. . . | 2 10 3 | 12 Mar. (71) . . . | 1 Sun. . . | 262.3788 | 4308 |
| 26 Mar. (85) . . . | 2 Mon. . . | 8 22 12 | 1 Mar. (60) . . . | 5 Thur. . . | 138.1017 | 4309 |
| 25 Mar. (85) . . . | 3 Tues. . . | 14 34 21 | 19 Mar. (79) . . . | 4 Wed. . . | 172.7840 | 4310 |
| 25 Mar. (84) . . . | 4 Wed. . . | 20 46 30 | 8 Mar. (67) . . . | 1 Sun. . . | 48.5069 | 4311 |
| 26 Mar. (85) . . . | 6 Fri. . . | 2 58 39 | 26 Feb. (57) . . . | 6 Fri. . . | 262.8617 | 4312 |
| 26 Mar. (85) . . . | 0 Sat. . . | 9 10 48 | 17 Mar. (76) . . . | 5 Thur. . . | 297.5441 | 4313 |
| 25 Mar. (85) . . . | 1 Sun. . . | 15 22 57 | 5 Mar. (65) . . . | 2 Mon. . . | 173.2669 | 4314 |
| 25 Mar. (84) . . . | 2 Mon. . . | 21 35 6 | 24 Mar. (83) . . . | 1 Sun. . . | 207.9493 | 4315 |
| 26 Mar. (85) . . . | 4 Wed. . . | 3 47 15 | 13 Mar. (72) . . . | 5 Thur. . . | 83.6722 | 4316 |
| 26 Mar. (85) . . . | 5 Thur. . . | 9 59 24 | 3 Mar. (62) . . . | 3 Tues. . . | 298.0269 | 4317 |
| 25 Mar. (85) . . . | 6 Fri. . . | 16 11 33 | 21 Mar. (81) . . . | 2 Mon. . . | 332.7094 | 4318 |
| 25 Mar. (84) . . . | 0 Sat. . . | 22 23 42 | 10 Mar. (69) . . . | 6 Fri. . . | 208.4322 | 4319 |
| 26 Mar. (85) . . . | 2 Mon. . . | 4 35 51 | 27 Feb. (58) . . . | 3 Tues. . . | 84.1551 | 4320 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| | | | | | | | | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4321 | 1142 | 1277 | 626 | 394-95 | 1219-20 | 13 Pramāthin . | 17 Subhānu . | .. |
| 4322 | 1143 | 1278 | 627 | 395-96 | *1220-21 | 14 Vikrama . | 18 Tāraṇa . | 12 Phālguna . |
| 4323 | 1144 | 1279 | 628 | 396-97 | 1221-22 | 15 Vṛisha . | 19 Pārthiva . | .. |
| 4324 | 1145 | 1280 | 629 | 397-98 | 1222-23 | 16 Chitrabhānu . | 20 Vyaya . | .. |
| 4325 | 1146 | 1281 | 630 | 398-99 | 1223-24 | 17 Subhānu . | 21 Sarvajit . | 9 Mārgasira . |
| 4326 | 1147 | 1282 | 631 | 399-400 | *1224-25 | 18 Tāraṇa . | 22 Sarvadhārin . | .. |
| 4327 | 1148 | 1283 | 632 | 400-01 | 1225-26 | 19 Pārthiva . | 23 Virōdhin . | .. |
| 4328 | 1149 | 1284 | 633 | 401-02 | 1226-27 | 20 Vyaya . | 24 Vikṛita . | 5 Śrāvapa . |
| 4329 | 1150 | 1285 | 634 | 402-03 | 1227-28 | 21 Sarvajit . | 25 Khara . | .. |
| 4330 | 1151 | 1286 | 635 | 403-04 | *1228-29 | 22 Sarvadhārin . | 26 Nandana . | .. |
| 4331 | 1152 | 1287 | 636 | 404-05 | 1229-30 | 23 Virōdhin . | 27 Vijaya . | 2 Vaisākha . |
| 4332 | 1153 | 1288 | 637 | 405-06 | 1230-31 | 24 Vikṛita . | 28 Jaya . | ... |
| 4333 | 1154 | 1289 | 638 | 406-07 | 1231-32 | 25 Khara . | 29 Manmatha . | 10 Pausa . |
| 4334 | 1155 | 1290 | 639 | 407-08 | *1232-33 | 26 Nandana . | 30 Durmukha . | .. |
| 4335 | 1156 | 1291 | 640 | 408-09 | 1233-34 | 27 Vijaya . | 31 Hēmalamba . | ... |
| 4336 | 1157 | 1292 | 641 | 409-10 | 1234-35 | 28 Jaya . | 32 Vilamba . | 7 Āsyina . |
| 4337 | 1158 | 1293 | 642 | 410-11 | 1235-36 | 29 Manmatha . | 33 Vikārin . | ... |
| 4338 | 1159 | 1294 | 643 | 411-12 | *1236-37 | 30 Durmukha . | 34 Śārvarin . | .. |
| 4339 | 1160 | 1295 | 644 | 412-13 | 1237-38 | 31 Hēmalamba . | 35 Plava . | 4 Āśāḍha . |
| 4340 | 1161 | 1296 | 645 | 413-14 | 1238-39 | 32 Vilamba . | 36 Subhakṛit . | .. |
| 4341 | 1162 | 1297 | 646 | 414-15 | 1239-40 | 33 Vikārin . | 37 Śobhana . | 12 Phālguna . |
| 4342 | 1163 | 1298 | 647 | 415-16 | *1240-41 | 34 Śārvarin . | 38 Krōdhin . | .. |
| 4343 | 1164 | 1299 | 648 | 416-17 | 1241-42 | 35 Plava . | 39 Viśvāvaṇ . | .. |
| 4344 | 1165 | 1300 | 649 | 417-18 | 1242-43 | 36 Subhakṛit . | 40 Parābhava . | 9 Mārgasira . |
| 4345 | 1166 | 1301 | 650 | 418-19 | 1243-44 | 37 Śobhana . | 41 Plavaṅga . | .. |

XO—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēṣha-samkrānti. | Day and month, A.D. | Week-day. | <i>a</i> (here = <i>t</i> , the index of the <i>tiddhi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | 1 |
| 26 Mar. (85) . . . | 3 Tues. . . | 10 48 0 | 18 Mar. (77) . . . | 2 Mon. . . | 118·8374 | 4321 |
| 25 Mar. (85) . . . | 4 Wed. . . | 17 0 9 | 7 Mar. (67) . . . | 0 Sat. . . | 333·1923 | 4322 |
| 25 Mar. (84) . . . | 5 Thur. . . | 23 12 18 | 25 Mar. (84) . . . | 5 Thur. . . | 29·2427 | 4323 |
| 26 Mar. (85) . . . | 0 Sat. . . | 5 24 27 | 15 Mar. (74) . . . | 3 Tues. . . | 243·5975 | 4324 |
| 26 Mar. (85) . . . | 1 Sun. . . | 11 36 36 | 4 Mar. (63) . . . | 0 Sat. . . | 119·3203 | 4325 |
| 25 Mar. (85) . . . | 2 Mon. . . | 17 48 45 | 22 Mar. (82) . . . | 6 Fri. . . | 154·0027 | 4326 |
| 26 Mar. (85) . . . | 4 Wed. . . | 0 0 54 | 11 Mar. (70) . . . | 3 Tues. . . | 29·7256 | 4327 |
| 26 Mar. (85) . . . | 5 Thur. . . | 6 13 3 | 1 Mar. (60) . . . | 1 Sun. . . | 244·0804 | 4328 |
| 26 Mar. (85) . . . | 6 Fri. . . | 12 25 12 | 20 Mar. (79) . . . | 0 Sat. . . | 278·7628 | 4329 |
| 25 Mar. (85) . . . | 0 Sat. . . | 18 37 21 | 8 Mar. (68) . . . | 4 Wed. . . | 154·4857 | 4330 |
| 26 Mar. (85) . . . | 2 Mon. . . | 0 49 30 | 25 Feb. (56) . . . | 1 Sun. . . | 30·2084 | 4331 |
| 26 Mar. (85) . . . | 3 Tues. . . | 7 1 39 | 16 Mar. (75) . . . | 0 Sat. . . | 64·8908 | 4332 |
| 26 Mar. (85) . . . | 4 Wed. . . | 13 13 48 | 6 Mar. (65) . . . | 5 Thur. . . | 270·2457 | 4333 |
| 25 Mar. (85) . . . | 5 Thur. . . | 19 25 57 | 24 Mar. (84) . . . | 4 Wed. . . | 813·9281 | 4334 |
| 26 Mar. (85) . . . | 0 Sat. . . | 1 38 6 | 13 Mar. (72) . . . | 1 Sun. . . | 189·6509 | 4335 |
| 26 Mar. (85) . . . | 1 Sun. . . | 7 50 15 | 2 Mar. (61) . . . | 5 Thur. . . | 65·3738 | 4336 |
| 26 Mar. (85) . . . | 2 Mon. . . | 14 2 24 | 21 Mar. (80) . . . | 4 Wed. . . | 100·0562 | 4337 |
| 25 Mar. (85) . . . | 3 Tues. . . | 20 14 33 | 10 Mar. (70) . . . | 2 Mon. . . | 314·4110 | 4338 |
| 26 Mar. (85) . . . | 5 Thur. . . | 2 26 42 | 27 Feb. (58) . . . | 6 Fri. . . | 190·1338 | 4339 |
| 26 Mar. (85) . . . | 6 Fri. . . | 8 38 51 | 18 Mar. (77) . . . | 5 Thur. . . | 224·8162 | 4340 |
| 26 Mar. (85) . . . | 0 Sat. . . | 14 51 0 | 7 Mar. (66) . . . | 2 Mon. . . | 100·5391 | 4341 |
| 25 Mar. (85) . . . | 1 Sun. . . | 21 3 9 | 25 Mar. (85) . . . | 1 Sun. . . | 135·2214 | 4342 |
| 26 Mar. (85) . . . | 3 Tues. . . | 3 15 18 | 14 Mar. (73) . . . | 5 Thur. . . | 10·9443 | 4343 |
| 26 Mar. (85) . . . | 4 Wed. . . | 9 27 27 | 4 Mar. (63) . . . | 3 Tues. . . | 225·2091 | 4344 |
| 26 Mar. (85) . . . | 5 Thur. . . | 15 39 36 | 23 Mar. (82) . . . | 2 Mon. . . | 250·9815 | 4345 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4346 | 1167 | 1302 | 651 | 419-20 | *1244-45 | 38 Krōdhin . | 42 Kīlaka† . | ... |
| 4347 | 1168 | 1303 | 652 | 420-21 | 1245-46 | 39 Viśvāvasu . | 44 Sādhāraṇa . | 5 Śrāvaṇa . |
| 4348 | 1169 | 1304 | 653 | 421-22 | 1246-47 | 40 Parābhava . | 45 Virōdhakṛit . | ... |
| 4349 | 1170 | 1305 | 654 | 422-23 | 1247-48 | 41 Plavaṅga . | 46 Paridhāvin . | ... |
| 4350 | 1171 | 1306 | 655 | 423-24 | *1248-49 | 42 Kīlaka . | 47 Pramādin . | 2 Vaiśākha . |
| 4351 | 1172 | 1307 | 656 | 424-25 | 1249-50 | 43 Saumya . | 48 Ānanda . | ... |
| 4352 | 1173 | 1308 | 657 | 425-26 | 1250-51 | 44 Sādhāraṇa . | 49 Rākṣasa . | 10 Pausa . |
| 4353 | 1174 | 1309 | 658 | 426-27 | 1251-52 | 45 Virōdhakṛit . | 50 Anala . | ... |
| 4354 | 1175 | 1310 | 659 | 427-28 | *1252-53 | 46 Paridhāvin . | 51 Piṅgala . | ... |
| 4355 | 1176 | 1311 | 660 | 428-29 | 1253-54 | 47 Pramādin . | 52 Kālayukta . | 7 Āsvina . |
| 4356 | 1177 | 1312 | 661 | 429-30 | 1254-55 | 48 Ānanda . | 53 Siddhārthin . | ... |
| 4357 | 1178 | 1313 | 662 | 430-31 | 1255-56 | 49 Rākṣasa . | 54 Raudra . | ... |
| 4358 | 1179 | 1314 | 663 | 431-32 | *1256-57 | 50 Anala . | 55 Durmati . | 3 Jyēṣṭha . |
| 4359 | 1180 | 1315 | 664 | 432-33 | 1257-58 | 51 Piṅgala . | 56 Dundubhi . | ... |
| 4360 | 1181 | 1316 | 665 | 433-34 | 1258-59 | 52 Kālayukta . | 57 Rudhirōdgārin . | 12 Phālguna . |
| 4361 | 1182 | 1317 | 666 | 434-35 | 1259-60 | 53 Siddhārthin . | 58 Raktāksha . | ... |
| 4362 | 1183 | 1318 | 667 | 435-36 | *1260-61 | 54 Raudra . | 59 Krōdhana . | ... |
| 4363 | 1184 | 1319 | 668 | 436-37 | 1261-62 | 55 Durmati . | 60 Kṣaya . | 8 Kārttika . |
| 4364 | 1185 | 1320 | 669 | 437-38 | 1262-63 | 56 Dundubhi . | 1 Prabhava . | ... |
| 4365 | 1186 | 1321 | 670 | 438-39 | 1263-64 | 57 Rudhirōdgārin . | 2 Vibhava . | ... |
| 4366 | 1187 | 1322 | 671 | 439-40 | *1264-65 | 58 Raktāksha . | 3 Śukla . | 5 Śrāvaṇa . |
| 4367 | 1188 | 1323 | 672 | 440-41 | 1265-66 | 59 Krōdhana . | 4 Pramōda . | ... |
| 4368 | 1189 | 1324 | 673 | 441-42 | 1266-67 | 60 Kṣaya . | 5 Prajāpati . | ... |
| 4369 | 1190 | 1325 | 674 | 442-43 | 1267-68 | 1 Prabhava . | 6 Aṅgiras . | 1 Chaitra . |
| 4370 | 1191 | 1326 | 675 | 443-44 | *1268-69 | 2 Vibhava . | 7 Śrīmukha . | ... |

† 43 Saumya was suppressed in the north by the mean system. By the "true" system K.Y. 4846 (expired), A.D. 1245-46, was called "Saumya," 44 Sādhāraṇa being suppressed. The next year was 45 Virōdhakṛit by both systems of reckoning.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|---|-------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 25 Mar. (85) . . . | 6 Fri. . . | 21 51 45 | 11 Mar. (71) . . . | 6 Fri. . . | 135·7043 | 4346 |
| 26 Mar. (85) . . . | 1 Sun. . . | 4 3 54 | 28 Feb. (59) . . . | 3 Tues. . . | 11·4272 | 4347 |
| 26 Mar. (85) . . . | 2 Mon. . . | 10 16 3 | 19 Mar. (78) . . . | 2 Mon. . . | 46·1096 | 4348 |
| 26 Mar. (85) . . . | 3 Tues. . . | 16 28 12 | 9 Mar. (68) . . . | 0 Sat. . . | 260·4644 | 4349 |
| 25 Mar. (85) . . . | 4 Wed. . . | 22 40 21 | 26 Feb. (57) . . . | 4 Wed. . . | 186·1872 | 4350 |
| 26 Mar. (85) . . . | 6 Fri. . . | 4 52 30 | 16 Mar. (75) . . . | 3 Tues. . . | 170·8696 | 4351 |
| 26 Mar. (85) . . . | 0 Sat. . . | 11 4 39 | 5 Mar. (64) . . . | 0 Sat. . . | 46·5925 | 4352 |
| 26 Mar. (85) . . . | 1 Sun. . . | 17 16 48 | 24 Mar. (83) . . . | 6 Fri. . . | 81·2748 | 4353 |
| 25 Mar. (85) . . . | 2 Mon. . . | 23 28 57 | 13 Mar. (73) . . . | 4 Wed. . . | 295·3297 | 4354 |
| 26 Mar. (85) . . . | 4 Wed. . . | 5 41 6 | 2 Mar. (61) . . . | 1 Sun. . . | 171·3526 | 4355 |
| 26 Mar. (85) . . . | 5 Thur. . . | 11 53 15 | 21 Mar. (80) . . . | 0 Sat. . . | 206·0349 | 4356 |
| 26 Mar. (85) . . . | 6 Fri. . . | 18 6 24 | 10 Mar. (69) . . . | 4 Wed. . . | 81·7577 | 4357 |
| 26 Mar. (86) . . . | 1 Sun. . . | 0 17 33 | 28 Feb. (59) . . . | 2 Mon. . . | 296·1126 | 4358 |
| 26 Mar. (85) . . . | 2 Mon. . . | 6 29 42 | 18 Mar. (77) . . . | 1 Sun. . . | 330·7950 | 4359 |
| 26 Mar. (85) . . . | 3 Tues. . . | 12 41 51 | 7 Mar. (66) . . . | 5 Thur. . . | 206·5178 | 4360 |
| 26 Mar. (85) . . . | 4 Wed. . . | 18 54 0 | 26 Mar. (85) . . . | 4 Wed. . . | 241·2002 | 4361 |
| 26 Mar. (86) . . . | 6 Fri. . . | 1 6 9 | 14 Mar. (74) . . . | 1 Sun. . . | 116·9231 | 4362 |
| 26 Mar. (85) . . . | 0 Sat. . . | 7 18 18 | 4 Mar. (63) . . . | 6 Fri. . . | 331·2778 | 4363 |
| 23 Mar. (85) . . . | 1 Sun. . . | 13 30 27 | 22 Mar. (81) . . . | 4 Wed. . . | 27·3283 | 4364 |
| 26 Mar. (85) . . . | 2 Mon. . . | 19 42 36 | 12 Mar. (71) . . . | 2 Mon. . . | 241·6831 | 4365 |
| 26 Mar. (86) . . . | 4 Wed. . . | 1 54 45 | 29 Feb. (60) . . . | 6 Fri. . . | 117·4060 | 4366 |
| 26 Mar. (85) . . . | 5 Thur. . . | 8 6 54 | 19 Mar. (78) . . . | 5 Thur. . . | 152·0883 | 4367 |
| 26 Mar. (85) . . . | 6 Fri. . . | 14 19 3 | 8 Mar. (67) . . . | 2 Mon. . . | 27·8112 | 4368 |
| 26 Mar. (85) . . . | 0 Sat. . . | 20 31 12 | 26 Feb. (57) . . . | 0 Sat. . . | 242·1660 | 4369 |
| 26 Mar. (86) . . . | 2 Mon. . . | 2 43 21 | 16 Mar. (76) . . . | 6 Fri. . . | 276·8483 | 4370 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēbhādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSAHA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4371 | 1193 | 1327 | 676 | 444-45 | 1269-70 | 3 Śukla . . | 8 Bhāva . . | 10 Pausa . . |
| 4372 | 1193 | 1328 | 677 | 445-46 | 1270-71 | 4 Pramōda . . | 9 Yuvan . . | ... |
| 4373 | 1194 | 1329 | 678 | 446-47 | 1271-72 | 5 Prajāpati . . | 10 Dhātṛi . . | ... |
| 4374 | 1195 | 1330 | 679 | 447-48 | *1272-73 | 6 Aṅgiras . . | 11 Īvara . . | 7 Āvina . . |
| 4375 | 1196 | 1331 | 680 | 448-49 | 1273-74 | 7 Śṛimukha . . | 12 Bahudhānya . . | ... |
| 4376 | 1197 | 1332 | 681 | 449-50 | 1274-75 | 8 Bhāva . . | 13 Pramāthīn . . | ... |
| 4377 | 1198 | 1333 | 682 | 450-51 | 1275-76 | 9 Yuvan . . | 14 Vikrama . . | 3 Jyēṣṭha . . |
| 4378 | 1199 | 1334 | 683 | 451-52 | *1276-77 | 10 Dhātṛi . . | 15 Vṛisha . . | ... |
| 4379 | 1200 | 1335 | 684 | 452-53 | 1277-78 | 11 Īvara . . | 16 Chitrabhānu . . | 12 Phālguna . . |
| 4380 | 1201 | 1336 | 685 | 453-54 | 1278-79 | 12 Bahudhānya . . | 17 Subhānu . . | ... |
| 4381 | 1202 | 1337 | 686 | 454-55 | 1279-80 | 13 Pramāthīn . . | 18 Tāraka . . | ... |
| 4382 | 1203 | 1338 | 687 | 455-56 | *1280-81 | 14 Vikrama . . | 19 Pārthiva . . | 8 Kārtika . . |
| 4383 | 1204 | 1339 | 688 | 456-57 | 1281-82 | 15 Vṛisha . . | 20 Vyaya . . | ... |
| 4384 | 1205 | 1340 | 689 | 457-58 | 1282-83 | 16 Chitrabhānu . . | 21 Sarvajit . . | ... |
| 4385 | 1206 | 1341 | 690 | 458-59 | 1283-84 | 17 Subhānu . . | 22 Sarvadhārin . . | 5 Śrāvaṇa . . |
| 4386 | 1207 | 1342 | 691 | 459-60 | *1284-85 | 18 Tāraka . . | 23 Virōdhin . . | ... |
| 4387 | 1208 | 1343 | 692 | 460-61 | 1285-86 | 19 Pārthiva . . | 24 Vikṛita . . | ... |
| 4388 | 1209 | 1344 | 693 | 461-62 | 1286-87 | 20 Vyaya . . | 25 Khara . . | 1 Chaitra . . |
| 4389 | 1210 | 1345 | 694 | 462-63 | 1287-88 | 21 Sarvajit . . | 26 Nandana . . | ... |
| 4390 | 1211 | 1346 | 695 | 463-64 | *1288-89 | 22 Sarvadhārin . . | 27 Vijaya . . | 10 Pausa . . |
| 4391 | 1212 | 1347 | 696 | 464-65 | 1289-90 | 23 Virōdhin . . | 28 Jaya . . | ... |
| 4392 | 1213 | 1348 | 697 | 465-66 | 1290-91 | 24 Vikṛita . . | 29 Manmatha . . | ... |
| 4393 | 1214 | 1349 | 698 | 466-67 | 1291-92 | 25 Khara . . | 30 Duraukha . . | 6 Bhādrapada . . |
| 4394 | 1215 | 1350 | 699 | 467-68 | *1292-93 | 26 Nandana . . | 31 Hēmalamba . . | ... |
| 4395 | 1216 | 1351 | 700 | 468-69 | 1293-94 | 27 Vijaya . . | 32 Vilamba . . | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|--------------|-------------------------------|---|-------------|---------------------------------------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṁkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the tithi). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 26 Mar. (85) . . . | 3 Tues. . . | 8 55 30 | 5 Mar. (64) . . . | 3 Tues. . . | 152-5712 | 4371 |
| 26 Mar. (85) . . . | 4 Wed. . . | 15 7 39 | 24 Mar. (83) . . . | 2 Mon. . . | 187-2536 | 4372 |
| 26 Mar. (85) . . . | 5 Thur. . . | 21 19 48 | 13 Mar. (72) . . . | 6 Fri. . . | 62-9765 | 4373 |
| 26 Mar. (86) . . . | 0 Sat. . . | 3 31 57 | 2 Mar. (62) . . . | 4 Wed. . . | 277-3313 | 4374 |
| 26 Mar. (85) . . . | 1 Sun. . . | 9 44 6 | 21 Mar. (80) . . . | 3 Tues. . . | 312-0137 | 4375 |
| 26 Mar. (85) . . . | 2 Mon. . . | 15 56 15 | 10 Mar. (69) . . . | 0 Sat. . . | 187-7365 | 4376 |
| 26 Mar. (85) . . . | 3 Tues. . . | 22 8 24 | 27 Feb. (58) . . . | 4 Wed. . . | 63-4593 | 4377 |
| 26 Mar. (86) . . . | 5 Thur. . . | 4 20 33 | 17 Mar. (77) . . . | 3 Tues. . . | 98-1417 | 4378 |
| 26 Mar. (85) . . . | 6 Fri. . . | 10 32 42 | 7 Mar. (66) . . . | 1 Sun. . . | 312-4966 | 4379 |
| 26 Mar. (85) . . . | 0 Sat. . . | 16 44 51 | 25 Mar. (84) . . . | 6 Fri. . . | 8-5470 | 4380 |
| 26 Mar. (85) . . . | 1 Sun. . . | 22 57 0 | 15 Mar. (74) . . . | 4 Wed. . . | 222-9018 | 4381 |
| 26 Mar. (86) . . . | 3 Tues. . . | 5 9 9 | 3 Mar. (63) . . . | 1 Sun. . . | 98-6246 | 4382 |
| 26 Mar. (85) . . . | 4 Wed. . . | 11 21 18 | 22 Mar. (81) . . . | 0 Sat. . . | 133-3071 | 4383 |
| 26 Mar. (85) . . . | 5 Thur. . . | 17 33 27 | 11 Mar. (70) . . . | 4 Wed. . . | 9-0209 | 4384 |
| 26 Mar. (85) . . . | 6 Fri. . . | 23 45 36 | 1 Mar. (60) . . . | 2 Mon. . . | 223-3847 | 4385 |
| 26 Mar. (86) . . . | 1 Sun. . . | 5 57 45 | 19 Mar. (79) . . . | 1 Sun. . . | 258-0671 | 4386 |
| 26 Mar. (85) . . . | 2 Mon. . . | 12 9 54 | 8 Mar. (67) . . . | 5 Thur. . . | 133-7900 | 4387 |
| 26 Mar. (85) . . . | 3 Tues. . . | 18 22 3 | 25 Feb. (56) . . . | 2 Mon. . . | 9-5127 | 4388 |
| 27 Mar. (86) . . . | 5 Thur. . . | 0 34 12 | 16 Mar. (75) . . . | 1 Sun. . . | 44-1952 | 4389 |
| 26 Mar. (86) . . . | 6 Fri. . . | 6 46 21 | 5 Mar. (65) . . . | 6 Fri. . . | 258-5500 | 4390 |
| 26 Mar. (85) . . . | 0 Sat. . . | 12 58 30 | 24 Mar. (83) . . . | 5 Thur. . . | 293-2324 | 4391 |
| 26 Mar. (85) . . . | 1 Sun. . . | 19 10 39 | 13 Mar. (72) . . . | 2 Mon. . . | 168-9552 | 4392 |
| 27 Mar. (86) . . . | 3 Tues. . . | 1 22 48 | 2 Mar. (61) . . . | 6 Fri. . . | 44-6781 | 4393 |
| 26 Mar. (86) . . . | 4 Wed. . . | 7 34 57 | 20 Mar. (80) . . . | 5 Thur. . . | 79-3606 | 4394 |
| 26 Mar. (85) . . . | 5 Thurs. . . | 13 47 6 | 10 Mar. (69) . . . | 3 Tues. . . | 293-7152 | 4395 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|-----------|---------------------|---------------------|---|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4396 | 1217 | 1352 | 701 | 469-70 | 1294-95 | 28 Jaya . | 33 Vikārin . | 3 Jyēshṭha . |
| 4397 | 1218 | 1353 | 702 | 470-71 | 1295-96 | 29 Manmatha . | 34 Śārvarin . | ... |
| 4398 | 1219 | 1354 | 703 | 471-72 | *1296-97 | 30 Durmukha . | 35 Plava . | 11 Māgha . |
| 4399 | 1220 | 1355 | 704 | 472-73 | 1297-98 | 31 Hēmalamba . | 36 Śubhakṛit . | ... |
| 4400 | 1221 | 1356 | 705 | 473-74 | 1298-99 | 32 Vilamba . | 37 Śōbhana . | ... |
| 4401 | 1222 | 1357 | 706 | 474-75 | 1299-1300 | 33 Vikārin . | 38 Krōdhin . | 8 Kārttika . |
| 4402 | 1223 | 1358 | 707 | 475-76 | *1300-01 | 34 Śārvarin . | 39 Viśvāvasu . | ... |
| 4403 | 1224 | 1359 | 708 | 476-77 | 1301-02 | 35 Plava . | 40 Parābhava . | ... |
| 4404 | 1225 | 1360 | 709 | 477-78 | 1302-03 | 36 Śubhakṛit . | 41 Plavaṅga . | 4 Āshāḍha . |
| 4405 | 1226 | 1361 | 710 | 478-79 | 1303-04 | 37 Śōbhana . | 42 Kilaka . | ... |
| 4406 | 1227 | 1362 | 711 | 479-80 | *1304-05 | 38 Krōdhin . | 43 Saumya . | ... |
| 4407 | 1228 | 1363 | 712 | 480-81 | 1305-06 | 39 Viśvāvasu . | 44 Sādhārāṇa . | 1 Chaitra . |
| 4408 | 1229 | 1364 | 713 | 481-82 | 1306-07 | 40 Parābhava . | 45 Virōdhakṛit . | ... |
| 4409 | 1230 | 1365 | 714 | 482-83 | 1307-08 | 41 Plavaṅga . | 46 Paridhāvin . | 10 Pausa ‡ . |
| 4410 | 1231 | 1366 | 715 | 483-84 | *1308-09 | 42 Kilaka . | 47 Pramādin . | ... |
| 4411 | 1232 | 1367 | 716 | 484-85 | 1309-10 | 43 Saumya . | 48 Ānanda . | ... |
| 4412 | 1233 | 1368 | 717 | 485-86 | 1310-11 | 44 Sādhārāṇa . | 49 Rākhasa . | 6 Bhādrapada . |
| 4413 | 1234 | 1369 | 718 | 486-87 | 1311-12 | 45 Virōdhakṛit . | 50 Anala . | ... |
| 4414 | 1235 | 1370 | 719 | 487-88 | *1312-13 | 46 Paridhāvin . | 51 Piṅgala . | ... |
| 4415 | 1236 | 1371 | 720 | 488-89 | 1313-14 | 47 Pramādin . | 52 Kālayukta . | 3 Jyēshṭha . |
| 4416 | 1237 | 1372 | 721 | 489-90 | 1314-15 | 48 Ānanda . | 53 Siddhārthin . | ... |
| 4417 | 1238 | 1373 | 722 | 490-91 | 1315-16 | 49 Rākhasa . | 54 Raudra . | 11 Māgha . |
| 4418 | 1239 | 1374 | 723 | 491-92 | *1316-17 | 50 Anala . | 55 Durmati . | ... |
| 4419 | 1240 | 1375 | 724 | 492-93 | 1317-18 | 51 Piṅgala . | 56 Dandabhi . | ... |
| 4420 | 1241 | 1376 | 725 | 493-94 | 1318-19 | 52 Kālayukta . | 57 Rudhirōdgārin . | 8 Kārttika . |

‡ See "Remarks," p. 215, preceding this Table.

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-------------|-------------------------------|--|-------------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA ŚUKLA BENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Mōsha-saṅkrānti. | Day and month, A.D. | Week-day. | α (here = t , the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 26 Mar. (85) . . . | 6 Fri. . . | 19 59 15 | 27 Feb. (58) . . . | 0 Sat. . . | 169·4381 | 4396 |
| 27 Mar. (86) . . . | 1 Sun. . . | 2 11 24 | 18 Mar. (77) . . . | 6 Fri. . . | 204·1205 | 4397 |
| 26 Mar. (86) . . . | 2 Mon. . . | 8 23 33 | 6 Mar. (66) . . . | 3 Tues. . . | 79·8433 | 4398 |
| 26 Mar. (85) . . . | 3 Tues. . . | 14 35 42 | 25 Mar. (84) . . . | 2 Mon. . . | 114·5257 | 4399 |
| 26 Mar. (85) . . . | 4 Wed. . . | 20 47 51 | 15 Mar. (74) . . . | 0 Sat. . . | 328·8806 | 4400 |
| 27 Mar. (86) . . . | 6 Fri. . . | 3 0 0 | 4 Mar. (63) . . . | 4 Wed. . . | 204·6034 | 4401 |
| 26 Mar. (86) . . . | 0 Sat. . . | 9 12 9 | 22 Mar. (82) . . . | 3 Tues. . . | 239·2859 | 4402 |
| 26 Mar. (85) . . . | 1 Sun. . . | 15 24 18 | 11 Mar. (70) . . . | 0 Sat. . . | 115·0087 | 4403 |
| 26 Mar. (85) . . . | 2 Mon. . . | 21 36 27 | 1 Mar. (60) . . . | 5 Thur. . . | 329·3635 | 4404 |
| 27 Mar. (86) . . . | 4 Wed. . . | 3 48 36 | 19 Mar. (78) . . . | 3 Tues. . . | 25·4139 | 4405 |
| 26 Mar. (86) . . . | 5 Thur. . . | 10 0 45 | 8 Mar. (68) . . . | 1 Sun. . . | 239·7688 | 4406 |
| 26 Mar. (85) . . . | 6 Fri. . . | 16 12 54 | 25 Feb. (56) . . . | 5 Thur. . . | 115·4915 | 4407 |
| 26 Mar. (85) . . . | 0 Sat. . . | 22 25 3 | 16 Mar. (75) . . . | 4 Wed. . . | 150·1739 | 4408 |
| 27 Mar. (86) . . . | 2 Mon. . . | 4 37 12 | 5 Mar. (64) . . . | 1 Sun. . . | 25·8968 | 4409 |
| 26 Mar. (86) . . . | 3 Tues. . . | 10 49 21 | 23 Mar. (83) . . . | 0 Sat. . . | 60·5791 | 4410 |
| 26 Mar. (85) . . . | 4 Wed. . . | 17 1 30 | 13 Mar. (72) . . . | 5 Thur. . . | 274·9340 | 4411 |
| 26 Mar. (85) . . . | 5 Thur. . . | 23 13 39 | 2 Mar. (61) . . . | 2 Mon. . . | 150·6569 | 4412 |
| 27 Mar. (86) . . . | 0 Sat. . . | 5 25 48 | 21 Mar. (80) . . . | 1 Sun. . . | 185·3393 | 4413 |
| 26 Mar. (86) . . . | 1 Sun. . . | 11 37 57 | 9 Mar. (69) . . . | 5 Thur. . . | 61·0621 | 4414 |
| 26 Mar. (85) . . . | 2 Mon. . . | 17 50 6 | 27 Feb. (58) . . . | 3 Tues. . . | 275·4169 | 4415 |
| 27 Mar. (86) . . . | 4 Wed. . . | 0 2 15 | 18 Mar. (77) . . . | 2 Mon. . . | 310·0993 | 4416 |
| 27 Mar. (86) . . . | 5 Thur. . . | 6 14 24 | 7 Mar. (66) . . . | 6 Fri. . . | 185·8221 | 4417 |
| 26 Mar. (86) . . . | 6 Fri. . . | 12 26 33 | 25 Mar. (85) . . . | 5 Thur. . . | 220·5045 | 4418 |
| 26 Mar. (85) . . . | 0 Sat. . . | 18 38 42 | 14 Mar. (78) . . . | 2 Mon. . . | 96·2274 | 4419 |
| 27 Mar. (86) . . . | 2 Mon. . . | 0 50 51 | 4 Mar. (63) . . . | 0 Sat. . . | 310·5822 | 4420 |

TABLE

| CONCURRENT YEAR. | | | | | | | | |
|------------------|-------|--------------------|-------------------------------|---------|----------|--------------------|------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | Mean intercalated (adhika) lunar month. |
| | | | | | | Southern system. | Northern system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4421 | 1212 | 1377 | 726 | 494-95 | 1319-20 | 53 Siddhānthin . | 58 Raktāksha . | ... |
| 4422 | 1213 | 1378 | 727 | 495-96 | *1320-21 | 54 Raudra . | 59 Krōdhana . | ... |
| 4423 | 1214 | 1379 | 728 | 496-97 | 1321-22 | 55 Darmati . | 60 Kshaya . | 4 Āshādha . |
| 4424 | 1215 | 1380 | 729 | 497-98 | 1322-23 | 56 Dundubhi . | 1 Prabhava . | ... |
| 4425 | 1216 | 1381 | 730 | 498-99 | 1323-24 | 57 Radhirōdgārin . | 2 Vibhava . | ... |
| 4426 | 1217 | 1382 | 731 | 499-500 | *1324-25 | 58 Raktāksha . | 3 Śukla . | 1 Chaitra . |
| 4427 | 1218 | 1383 | 732 | 500-01 | 1325-26 | 59 Krōdhana . | 4 Pramōda . | ... |
| 4428 | 1219 | 1384 | 733 | 501-02 | 1326-27 | 60 Kshaya . | 5 Prajāpati . | 9 Mārgaśira . |
| 4429 | 1250 | 1385 | 734 | 502-03 | 1327-28 | 1 Prabhava . | 6 Aṅgiras . | ... |
| 4430 | 1251 | 1386 | 735 | 503-04 | *1328-29 | 2 Vibhava . | 7 Śrīmukha . | ... |
| 4431 | 1252 | 1387 | 736 | 504-05 | 1329-30 | 3 Śukla . | 8 Bhāvat . | 6 Bhādrapada . |
| 4432 | 1253 | 1388 | 737 | 505-06 | 1330-31 | 4 Pramōda . | 10 Dhātṛi . | ... |
| 4433 | 1254 | 1389 | 738 | 506-07 | 1331-32 | 5 Prajāpati . | 11 Itvara . | ... |
| 4434 | 1255 | 1390 | 739 | 507-08 | *1332-33 | 6 Aṅgiras . | 12 Bahudhānya . | 2 Vaiśākha . |
| 4435 | 1256 | 1391 | 740 | 508-09 | 1333-34 | 7 Śrīmukha . | 13 Pramāthin . | ... |
| 4436 | 1257 | 1392 | 741 | 509-10 | 1334-35 | 8 Bhāva . | 14 Vikrama . | 11 Māgha . |
| 4437 | 1258 | 1393 | 742 | 510-11 | 1335-36 | 9 Yuvan . | 15 Vṛisha . | ... |
| 4438 | 1259 | 1394 | 743 | 511-12 | *1336-37 | 10 Dhātṛi . | 16 Chitrabhānu . | ... |
| 4439 | 1260 | 1395 | 744 | 512-13 | 1337-38 | 11 Itvara . | 17 Subhānu . | 7 Āsvina . |
| 4440 | 1261 | 1396 | 745 | 513-14 | 1338-39 | 12 Bahudhānya . | 18 Tāraka . | ... |
| 4441 | 1262 | 1397 | 746 | 514-15 | 1339-40 | 13 Pramāthin . | 19 Pārthiva . | ... |
| 4442 | 1263 | 1398 | 747 | 515-16 | *1340-41 | 14 Vikrama . | 20 Vyaya . | 4 Āshādha . |
| 4443 | 1264 | 1399 | 748 | 516-17 | 1341-42 | 15 Vṛisha . | 21 Sarvajit . | ... |
| 4444 | 1265 | 1400 | 749 | 517-18 | 1342-43 | 16 Chitrabhānu . | 22 Sarvadhārin . | 12 Phālguna . |
| 4445 | 1266 | 1401 | 750 | 518-19 | 1343-44 | 17 Subhānu . | 23 Virōdhin . | ... |

† 9 Yuvan was suppressed in the north by the mean system. By the "true" system K.Y. 4431 (expired), A.D. 1330-31, was called "Yuvan," and 10 Dhātṛi was suppressed. The next year was 11 Itvara by both systems.

XC—*contd.*

| COMMENCEMENT OF THE | | | | | | | Kali. |
|---------------------|-------------|-------------------------------|---|-------------|--|------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITEA ŚUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-samkrānti. | Day and month, A.D. | Week-day. | a (the epoch, the index of the <i>tithi</i>). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 27 Mar. (86) . . . | 3 Tues. . . | 7 3 0 | 22 Mar. (81) . . . | 5 Thur. . . | 66326 | 4421 | |
| 26 Mar. (86) . . . | 4 Wed. . . | 13 15 9 | 11 Mar. (71) . . . | 3 Tues. . . | 2209874 | 4422 | |
| 26 Mar. (85) . . . | 5 Thur. . . | 19 27 18 | 28 Feb. (59) . . . | 0 Sat. . . | 967103 | 4423 | |
| 27 Mar. (86) . . . | 0 Sat. . . | 1 39 27 | 19 Mar. (78) . . . | 6 Fri. . . | 1315926 | 4424 | |
| 27 Mar. (86) . . . | 1 Sun. . . | 7 51 36 | 8 Mar. (67) . . . | 3 Tues. . . | 71155 | 4425 | |
| 26 Mar. (86) . . . | 2 Mon. . . | 14 3 45 | 26 Feb. (57) . . . | 1 Sun. . . | 2214703 | 4426 | |
| 26 Mar. (85) . . . | 3 Tues. . . | 20 15 54 | 16 Mar. (75) . . . | 0 Sat. . . | 2561527 | 4427 | |
| 27 Mar. (86) . . . | 5 Thur. . . | 2 28 3 | 5 Mar. (64) . . . | 4 Wed. . . | 1316755 | 4428 | |
| 27 Mar. (86) . . . | 6 Fri. . . | 8 40 12 | 24 Mar. (83) . . . | 3 Tues. . . | 1665579 | 4429 | |
| 26 Mar. (86) . . . | 0 Sat. . . | 14 52 21 | 12 Mar. (72) . . . | 0 Sat. . . | 422808 | 4430 | |
| 26 Mar. (85) . . . | 1 Sun. . . | 21 4 30 | 2 Mar. (61) . . . | 5 Thur. . . | 2566356 | 4431 | |
| 27 Mar. (86) . . . | 3 Tues. . . | 3 16 39 | 21 Mar. (80) . . . | 4 Wed. . . | 2914180 | 4432 | |
| 27 Mar. (86) . . . | 4 Wed. . . | 9 29 48 | 10 Mar. (69) . . . | 1 Sun. . . | 1670409 | 4433 | |
| 26 Mar. (86) . . . | 5 Thur. . . | 15 40 57 | 27 Feb. (58) . . . | 5 Thur. . . | 427637 | 4434 | |
| 26 Mar. (85) . . . | 6 Fri. . . | 21 53 6 | 17 Mar. (76) . . . | 4 Wed. . . | 774460 | 4435 | |
| 27 Mar. (86) . . . | 1 Sun. . . | 4 5 15 | 7 Mar. (66) . . . | 2 Mon. . . | 2918009 | 4436 | |
| 27 Mar. (86) . . . | 2 Mon. . . | 10 17 24 | 25 Mar. (85) . . . | 1 Sun. . . | 3264833 | 4437 | |
| 26 Mar. (86) . . . | 3 Tues. . . | 16 29 33 | 14 Mar. (74) . . . | 5 Thur. . . | 2022062 | 4438 | |
| 26 Mar. (85) . . . | 4 Wed. . . | 22 41 42 | 3 Mar. (62) . . . | 2 Mon. . . | 779289 | 4439 | |
| 27 Mar. (86) . . . | 6 Fri. . . | 4 53 51 | 22 Mar. (81) . . . | 1 Sun. . . | 1126114 | 4440 | |
| 27 Mar. (86) . . . | 0 Sat. . . | 11 6 0 | 12 Mar. (71) . . . | 6 Fri. . . | 3269662 | 4441 | |
| 26 Mar. (86) . . . | 1 Sun. . . | 17 18 9 | 29 Feb. (60) . . . | 3 Tues. . . | 2026890 | 4442 | |
| 26 Mar. (85) . . . | 2 Mon. . . | 23 30 18 | 19 Mar. (78) . . . | 2 Mon. . . | 2373714 | 4443 | |
| 27 Mar. (86) . . . | 4 Wed. . . | 5 42 27 | 8 Mar. (67) . . . | 6 Fri. . . | 1136943 | 4444 | |
| 27 Mar. (86) . . . | 5 Thur. . . | 11 54 36 | 27 Mar. (86) . . . | 5 Thur. . . | 1477767 | 4445 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēbhādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4446 | 1267 | 1402 | 751 | 519-20 | *1344-45 | 18 Tārāṇa . . | 24 Vikṛita . . | ... |
| 4447 | 1268 | 1403 | 752 | 520-21 | 1345-46 | 19 Pārthiva . . | 25 Khara . . | 9 Mārgaśira . |
| 4448 | 1269 | 1404 | 753 | 521-22 | 1346-47 | 20 Vyaya . . | 26 Nandana . . | ... |
| 4449 | 1270 | 1405 | 754 | 522-23 | 1347-48 | 21 Sarvajit . . | 27 Vijaya . . | ... |
| 4450 | 1271 | 1406 | 755 | 523-24 | *1348-49 | 22 Sarvadhārin . . | 28 Jaya . . | 6 Bhādrapada . |
| 4451 | 1272 | 1407 | 756 | 524-25 | 1349-50 | 23 Virōdhin . . | 29 Manmatha . . | ... |
| 4452 | 1273 | 1408 | 757 | 525-26 | 1350-51 | 24 Vikṛita . . | 30 Durmukha . . | ... |
| 4453 | 1274 | 1409 | 758 | 526-27 | 1351-52 | 25 Khara . . | 31 Hēmalamba . . | 2 Vaiśākha . |
| 4454 | 1275 | 1410 | 759 | 527-28 | *1352-53 | 26 Nandana . . | 32 Vilamba . . | ... |
| 4455 | 1276 | 1411 | 760 | 528-29 | 1353-54 | 27 Vijaya . . | 33 Vikārin . . | 11 Māgha . |
| 4456 | 1277 | 1412 | 761 | 529-30 | 1354-55 | 28 Jaya . . | 34 Śārvarin . . | ... |
| 4457 | 1278 | 1413 | 762 | 530-31 | 1355-56 | 29 Manmatha . . | 35 Plava . . | ... |
| 4458 | 1279 | 1414 | 763 | 531-32 | *1356-57 | 30 Durmukha . . | 36 Śubhakṛit . . | 7 Āśvina . |
| 4459 | 1280 | 1415 | 764 | 532-33 | 1357-58 | 31 Hēmalamba . . | 37 Śōbhana . . | ... |
| 4460 | 1281 | 1416 | 765 | 533-34 | 1358-59 | 32 Vilamba . . | 38 Krōdhin . . | ... |
| 4461 | 1282 | 1417 | 766 | 534-35 | 1359-60 | 33 Vikārin . . | 39 Viśvāvasu . . | 4 Āshāḍha . |
| 4462 | 1283 | 1418 | 767 | 535-36 | *1360-61 | 34 Śārvarin . . | 40 Parābhava . . | ... |
| 4463 | 1284 | 1419 | 768 | 536-37 | 1361-62 | 35 Plava . . | 41 Plavaṅga . . | 12 Phālguna . |
| 4464 | 1285 | 1420 | 769 | 537-38 | 1362-63 | 36 Śubhakṛit . . | 42 Kilaka . . | ... |
| 4465 | 1286 | 1421 | 770 | 538-39 | 1363-64 | 37 Śōbhana . . | 43 Saumya . . | ... |
| 4466 | 1287 | 1422 | 771 | 539-40 | *1364-65 | 38 Krōdhin . . | 44 Sādhāraṇa . . | 9 Mārgaśira . |
| 4467 | 1288 | 1423 | 772 | 540-41 | 1365-66 | 39 Viśvāvasu . . | 45 Virōdhakṛit . . | ... |
| 4468 | 1289 | 1424 | 773 | 541-42 | 1366-67 | 40 Parābhava . . | 46 Paridhāvin . . | ... |
| 4469 | 1290 | 1425 | 774 | 542-43 | 1367-68 | 41 Plavaṅga . . | 47 Pramādin . . | 5 Śrāvaṇa . |
| 4470 | 1291 | 1426 | 775 | 543-44 | *1368-69 | 42 Kilaka . . | 48 Ānanda . . | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | |
|---------------------|-----------|------------------------------|--|-----------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH 'HAITRA SUKLA' ENDS). | | | Kali. |
| Day and month, A.D. | Week-day. | Time of mean Māha-samkrānti. | Day and month, A.D. | Week-day. | a (here = t, the index of the <i>tithi</i>). | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 |
| | | H. M. S. | | | | |
| 26 Mar. (86) . | 6 Fri. | 18 6 45 | 15 Mar. (75) | 2 Mon. | 23·4995 | 4446 |
| 27 Mar. (86) . | 1 Sun. | 0 18 54 | 5 Mar. (64) | 0 Sat. | 237·8543 | 4447 |
| 27 Mar. (86) . | 2 Mon. | 6 31 3 | 24 Mar. (83) | 6 Fri. | 272·5307 | 4448 |
| 27 Mar. (86) . | 3 Tues. | 12 43 12 | 13 Mar. (72) | 3 Tues. | 148·2595 | 4449 |
| 26 Mar. (86) . | 4 Wed. | 18 55 21 | 1 Mar. (61) | 0 Sat. | 23·9824 | 4450 |
| 27 Mar. (86) . | 6 Fri. | 1 7 30 | 20 Mar. (79) | 6 Fri. | 58·6648 | 4451 |
| 27 Mar. (86) . | 0 Sat. | 7 19 39 | 10 Mar. (69) | 4 Wed. | 273·0197 | 4452 |
| 27 Mar. (86) . | 1 Sun. | 13 31 48 | 27 Feb. (58) | 1 Sun. | 148·7424 | 4453 |
| 26 Mar. (86) . | 2 Mon. | 19 43 57 | 17 Mar. (77) | 0 Sat. | 183·4248 | 4454 |
| 27 Mar. (86) . | 4 Wed. | 1 56 6 | 6 Mar. (65) | 4 Wed. | 59·1477 | 4455 |
| 27 Mar. (86) . | 5 Thur. | 8 8 15 | 25 Mar. (84) | 3 Tues. | 93·8300 | 4456 |
| 27 Mar. (86) . | 6 Fri. | 14 20 24 | 15 Mar. (74) | 1 Sun. | 308·1849 | 4457 |
| 26 Mar. (86) . | 0 Sat. | 20 32 33 | 3 Mar. (63) | 5 Thur. | 183·9077 | 4458 |
| 27 Mar. (86) . | 2 Mon. | 2 44 42 | 22 Mar. (81) | 4 Wed. | 218·5902 | 4459 |
| 27 Mar. (86) . | 3 Tues. | 8 56 51 | 11 Mar. (70) | 1 Sun. | 94·3129 | 4460 |
| 27 Mar. (86) . | 4 Wed. | 15 9 0 | 1 Mar. (60) | 6 Fri. | 308·6678 | 4461 |
| 26 Mar. (86) . | 5 Thur. | 21 21 9 | 18 Mar. (78) | 4 Wed. | 4·7182 | 4462 |
| 27 Mar. (86) . | 0 Sat. | 3 33 18 | 8 Mar. (67) | 2 Mon. | 219·0730 | 4463 |
| 27 Mar. (86) . | 1 Sun. | 9 45 27 | 27 Mar. (86) | 1 Sun. | 253·7554 | 4464 |
| 27 Mar. (86) . | 2 Mon. | 15 57 36 | 16 Mar. (75) | 5 Thur. | 129·4783 | 4465 |
| 26 Mar. (86) . | 3 Tues. | 22 9 45 | 4 Mar. (64) | 2 Mon. | 5·2011 | 4466 |
| 27 Mar. (86) . | 5 Thur. | 4 21 54 | 23 Mar. (82) | 1 Sun. | 39·8835 | 4467 |
| 27 Mar. (86) . | 6 Fri. | 10 34 3 | 13 Mar. (72) | 6 Fri. | 254·2383 | 4468 |
| 27 Mar. (86) . | 0 Sat. | 16 46 12 | 2 Mar. (61) | 3 Tues. | 129·9812 | 4469 |
| 26 Mar. (86) . | 1 Sun. | 22 18 21 | 20 Mar. (80) | 2 Mon. | 164·6435 | 4470 |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|----------------------------------|---------|----------|---------------------|---------------------|---|
| Kali. | Saka. | Chaitrādi Vikrama. | Mēshādi solar year in
Bengal. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4471 | 1292 | 1427 | 776 | 541-45 | 1369-70 | 43 Saumya . | 49 Rākshasa . | ... |
| 4472 | 1293 | 1428 | 777 | 545-46 | 1370-71 | 44 Sādhāraṇa | 50 Anala . | 2 Vaiśākha . |
| 4473 | 1294 | 1429 | 778 | 546-47 | 1371-72 | 45 Virōdhakṛit . | 51 Piṅgala . | ... |
| 4474 | 1295 | 1430 | 779 | 547-48 | *1372-73 | 46 Paridhāvin . | 52 Kālayukta . | 10 Pausa . |
| 4475 | 1296 | 1431 | 780 | 548-49 | 1373-74 | 47 Pramādin . | 53 Siddhārthin . | ... |
| 4476 | 1297 | 1432 | 781 | 549-50 | 1374-75 | 48 Ānanda . | 54 Randra . | ... |
| 4477 | 1298 | 1433 | 782 | 550-51 | 1375-76 | 49 Rākshasa . | 55 Durmati . | 7 Āśvina . |
| 4478 | 1299 | 1434 | 783 | 551-52 | *1376-77 | 50 Anala . | 56 Dundubhi . | ... |
| 4479 | 1300 | 1435 | 784 | 552-53 | 1377-78 | 51 Piṅgala . | 57 Rudhirōdgārin . | ... |
| 4480 | 1301 | 1436 | 785 | 553-54 | 1378-79 | 52 Kālayukta . | 58 Raktāksha . | 3 Jyēsthā . |
| 4481 | 1302 | 1437 | 786 | 554-55 | 1379-80 | 53 Siddhārthin . | 59 Krōdhana . | ... |
| 4482 | 1303 | 1438 | 787 | 555-56 | *1380-81 | 54 Randra . | 60 Kshaya . | 12 Phālguna . |
| 4483 | 1304 | 1439 | 788 | 556-57 | 1381-82 | 55 Durmati . | 1 Prabhava . | ... |
| 4484 | 1305 | 1440 | 789 | 557-58 | 1382-83 | 56 Dundubhi . | 2 Vibhava . | ... |
| 4485 | 1306 | 1441 | 790 | 558-59 | 1383-84 | 57 Rudhirōdgārin . | 3 Śukla . | 9 Mārgaśira . |
| 4486 | 1307 | 1442 | 791 | 559-60 | *1384-85 | 58 Raktāksha . | 4 Pramōda . | ... |
| 4487 | 1308 | 1443 | 792 | 560-61 | 1385-86 | 59 Krōdhana . | 5 Prajāpati . | ... |
| 4488 | 1309 | 1444 | 793 | 561-62 | 1386-87 | 60 Kshaya . | 6 Āṅgiras . | 5 Śrāvaṇa . |
| 4489 | 1310 | 1445 | 794 | 562-63 | 1387-88 | 1 Prabhava . | 7 Śrīmukha . | ... |
| 4490 | 1311 | 1446 | 795 | 563-64 | *1388-89 | 2 Vibhava . | 8 Bhāva . | ... |
| 4491 | 1312 | 1447 | 796 | 564-65 | 1389-90 | 3 Śukla . | 9 Yuvan . | 2 Vaiśākha . |
| 4492 | 1313 | 1448 | 797 | 565-66 | 1390-91 | 4 Pramōda . | 10 Dhātṛi . | ... |
| 4493 | 1314 | 1449 | 798 | 566-67 | 1391-92 | 5 Prajāpati . | 11 Īśvara . | 10 Pausa . |
| 4494 | 1315 | 1450 | 799 | 567-68 | *1392-93 | 6 Āṅgiras . | 12 Bahudhānya . | ... |
| 4495 | 1316 | 1451 | 800 | 568-69 | 1393-94 | 7 Śrīmukha . | 13 Pramāthin . | ... |

XC—contd.

| COMMENCEMENT OF THE | | | | | | | Kali. |
|---------------------|-------------|-------------------------------|---|-------------|--|------|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE CIVIL DAY ON WHICH CHAITRA SUKLA 1 ENDS). | | | | |
| Day and month, A.D. | Week-day. | Time of mean Mēsha-saṅkrānti. | Day and month, A.D. | Week-day. | a (here = t , the index of the <i>tithi</i>). | | |
| 13 | 14 | 17 | 19 | 20 | 23 | 1 | |
| | | H. M. S. | | | | | |
| 27 Mar. (86) . . . | 3 Tues. . . | 5 10 30 | 9 Mar. (68) . . . | 6 Fri. . . | 40·3664 | 4471 | |
| 27 Mar. (86) . . . | 4 Wed. . . | 11 22 39 | 27 Feb. (58) . . . | 4 Wed. . . | 254·7212 | 4472 | |
| 27 Mar. (86) . . . | 5 Thur. . . | 17 34 48 | 18 Mar. (77) . . . | 3 Tues. . . | 289·4036 | 4473 | |
| 26 Mar. (86) . . . | 6 Fri. . . | 23 46 57 | 6 Mar. (66) . . . | 0 Sat. . . | 165·1264 | 4474 | |
| 27 Mar. (86) . . . | 1 Sun. . . | 5 59 6 | 25 Mar. (84) . . . | 6 Fri. . . | 199·8088 | 4475 | |
| 27 Mar. (86) . . . | 2 Mon. . . | 12 11 15 | 14 Mar. (73) . . . | 3 Tues. . . | 75·5317 | 4476 | |
| 27 Mar. (86) . . . | 3 Tues. . . | 18 23 24 | 4 Mar. (63) . . . | 1 Sun. . . | 289·8864 | 4477 | |
| 27 Mar. (87) . . . | 5 Thur. . . | 0 35 33 | 22 Mar. (82) . . . | 0 Sat. . . | 324·5689 | 4478 | |
| 27 Mar. (86) . . . | 6 Fri. . . | 6 47 42 | 11 Mar. (70) . . . | 4 Wed. . . | 200·2917 | 4479 | |
| 27 Mar. (86) . . . | 0 Sat. . . | 12 59 51 | 28 Feb. (59) . . . | 1 Sun. . . | 76·0146 | 4480 | |
| 27 Mar. (86) . . . | 1 Sun. . . | 19 12 0 | 19 Mar. (78) . . . | 0 Sat. . . | 110·6969 | 4481 | |
| 27 Mar. (87) . . . | 3 Tues. . . | 1 24 9 | 8 Mar. (68) . . . | 5 Thur. . . | 325·0518 | 4482 | |
| 27 Mar. (86) . . . | 4 Wed. . . | 7 36 18 | 26 Mar. (85) . . . | 3 Tues. . . | 21·1022 | 4483 | |
| 27 Mar. (86) . . . | 5 Thur. . . | 13 48 27 | 16 Mar. (75) . . . | 1 Sun. . . | 235·4571 | 4484 | |
| 27 Mar. (86) . . . | 6 Fri. . . | 20 0 36 | 5 Mar. (64) . . . | 5 Thur. . . | 111·1798 | 4485 | |
| 27 Mar. (87) . . . | 1 Sun. . . | 2 12 45 | 23 Mar. (83) . . . | 4 Wed. . . | 145·8623 | 4486 | |
| 27 Mar. (86) . . . | 2 Mon. . . | 8 24 54 | 12 Mar. (71) . . . | 1 Sun. . . | 21·5851 | 4487 | |
| 27 Mar. (86) . . . | 3 Tues. . . | 14 37 3 | 2 Mar. (61) . . . | 6 Fri. . . | 235·9399 | 4488 | |
| 27 Mar. (86) . . . | 4 Wed. . . | 20 49 12 | 21 Mar. (80) . . . | 5 Thur. . . | 270·6223 | 4489 | |
| 27 Mar. (87) . . . | 6 Fri. . . | 3 1 21 | 9 Mar. (69) . . . | 2 Mon. . . | 146·3452 | 4490 | |
| 27 Mar. (86) . . . | 0 Sat. . . | 9 13 30 | 26 Feb. (57) . . . | 6 Fri. . . | 22·0680 | 4491 | |
| 27 Mar. (86) . . . | 1 Sun. . . | 15 25 39 | 17 Mar. (76) . . . | 5 Thur. . . | 56·7503 | 4492 | |
| 27 Mar. (86) . . . | 2 Mon. . . | 21 37 48 | 7 Mar. (66) . . . | 3 Tues. . . | 271·1052 | 4493 | |
| 27 Mar. (87) . . . | 4 Wed. . . | 3 49 57 | 25 Mar. (85) . . . | 2 Mon. . . | 305·7876 | 4494 | |
| 27 Mar. (86) . . . | 5 Thur. . . | 10 2 6 | 14 Mar. (73) . . . | 6 Fri. . . | 181·5104 | 4495 | |

TABLE

| CONCURRENT YEAR. | | | | | | | | Mean
intercalated
(<i>adhika</i>) lunar
month. |
|------------------|-------|--------------------|------------------------------------|---------|-----------|---------------------|---------------------|---|
| Kali. | Śaka. | Chaitrādi Vikrama. | Mēshādi solar year in
Pang. al. | Kollam. | A.D. | JOVIAN SAMVATSARA. | | |
| | | | | | | Southern
system. | Northern
system. | |
| 1 | 2 | 3 | 3a | 4 | 5 | 6 | 7 | 8a |
| 4496 | 1317 | 1452 | 801 | 569-70 | 1394-95 | 8 Bhāva . . | 14 Vikrama . . | 7 Āśvina . . |
| 4497 | 1318 | 1453 | 802 | 570-71 | 1395-96 | 9 Yuvan . . | 15 Vṛisha . . | ... |
| 4498 | 1319 | 1454 | 803 | 571-72 | *1396-97 | 10 Dhātṛi . . | 16 Chitrabhānu . . | ... |
| 4499 | 1320 | 1455 | 804 | 572-73 | 1397-98 | 11 Īsvara . . | 17 Subhānu . . | 3 Jyēṣṭha . . |
| 4500 | 1321 | 1456 | 805 | 573-74 | 1398-99 | 12 Bahudhānya . . | 18 Tārana . . | ... |
| 4501 | 1322 | 1457 | 806 | 574-75 | 1399-1400 | 13 Pramāthin . . | 19 Pārthiva . . | 12 Phālguna . . |
| 4502 | 1323 | 1458 | 807 | 575-76 | *1400-01 | 14 Vikrama . . | 20 Vyaya . . | ... |

XC—concl'd.

| COMMENCEMENT OF THE | | | | | | |
|------------------------|-----------|--------------------------------------|--|-----------|---|-------|
| MEAN SOLAR YEAR. | | | MEAN LUNI-SOLAR YEAR (MEAN SUNRISE OF THE
CIVIL DAY ON WHICH CHAITRA ŚUKLA 1 ENDS). | | | Kali. |
| Day and month,
A.D. | Week-day | Time of
mean Mēsha-
sankrānti. | Day and month,
A.D. | Week-day. | a (here $= t$,
the index
of the t_i/h_i). | |
| 13 | 14 | 17 | 19 | 20 | 23 | |
| | | H. M. S. | | | | |
| 27 Mar. (86) . . | 6 Fri. . | 16 14 15 | 3 Mar. (62) . . | 3 Tues. . | 57-2333 | 4496 |
| 27 Mar. (86) . . | 0 Sat. . | 22 26 24 | 22 Mar. (81) . . | 2 Mon. . | 91-9157 | 4497 |
| 27 Mar. (87) . . | 2 Mon. . | 4 38 33 | 11 Mar. (71) . . | 0 Sat. . | 303-2704 | 4498 |
| 27 Mar. (86) . . | 3 Tues. . | 10 50 42 | 28 Feb. (59) . . | 4 Wed. . | 181-9933 | 4499 |
| 27 Mar. (86) . . | 4 Wed. . | 17 2 51 | 19 Mar. (78) . . | 3 Tues. . | 216-6757 | 4500 |
| 27 Mar. (86) . . | 5 Thur. . | 23 15 0 | 8 Mar. (67) . . | 0 Sat. . | 92-3986 | 4501 |
| 27 Mar. (87) . . | 0 Sat. . | 5 27 9 | 26 Mar. (86) . . | 6 Fri. . | 127-0810 | 4502 |

TABLE XCI.

DURATION AND COLLECTIVE DURATION OF MEAN SOLAR MONTHS ACCORDING TO THE BRAHMA-SIDDHĀNTA, WITH INCREASE OF a AT EACH SAMKRĀNTI.

| Mean luni-solar month, ending after the second of the two solar samkrāntis connected with it. | At the mean solar samkrāntis. | Collective duration in time, and collective increase of a from mean Mēsha-samkrānti to the several samkrāntis. | | | |
|---|---|--|-----------|----------|-----------|
| | | Day. | Week-day. | H. M. S. | a |
| 1 | 2 | 3 | | | 4 |
| 1 Chaitra . | { Mīna-samk. (<i>of previous year</i>). | | | | |
| 2 Vaiśākha . | { Mēsha-samk. . | 0 | 0 | 0 0 0 | 0 |
| 3 Jyēsthā . | { Vṛishabha-samk. . | 30 | (2) | 10 31 0½ | 307·3492 |
| 4 Āshāḍha . | { Mithuna-samk. . | 60 | (4) | 21 2 1½ | 614·6983 |
| 5 Srāvaṇa . | { Karka-samk. . | 91 | (0) | 7 33 2½ | 922·0475 |
| 6 Bhādrapada . | { Simha-samk. . | 121 | (2) | 18 4 3 | 1229·3966 |
| 7 Āśvina . | { Kanyā-samk. . | 152 | (5) | 4 35 3½ | 1536·7458 |
| 8 Kārttika . | { Tulā-samk. . | 182 | (0) | 15 6 4½ | 1844·0949 |
| 9 Mārgaśīra . | { Vṛiśhika-samk. . | 213 | (3) | 1 37 5½ | 2151·4441 |
| 10 Pausa . | { Dhanu-samk. . | 243 | (5) | 12 8 6 | 2458·7933 |
| 11 Māgha . | { Makara-samk. . | 273 | (0) | 22 39 6½ | 2766·1424 |
| 12 Phālguna . | { Kumbha-samk. . | 304 | (3) | 9 10 7½ | 3073·4916 |
| 1 Chaitra (<i>of following year</i>). | { Mīna-samk. . | 334 | (5) | 19 41 8½ | 3380·8407 |
| | { Mēsha-samk. (<i>of following year</i>). | 365 | (1) | 6 12 9 | 3688·1899 |

The duration of each mean solar month is $30^d 10^h 31^m 0\frac{1}{2}s$; and in this time the mean moon's increase of distance from mean sun (our a), in measurement by 10,000ths of circle, is 307·349156595.

A samkrānti occurs at the moment when the mean sun enters a zodiacal sign.

TABLE XCII.

CENTURY-TABLE.

VALUE OF $a (= t)$ AT BEGINNING OF CENTURIES K.Y., i.e. AT MEAN SUNRISE ON DAY OF OCCURRENCE OF MEAN MESHA-SAMKRĀNTI (MEAN SUN AT 0°) IN FIRST YEAR OF CENTURY. [CENTURIES 38, 44, WERE DEFECTIVE; THE REST COMMON.]

| Beginning of K.Y. century. | Beginning in A.D. | Week-day. | $a (= t)$. |
|----------------------------|-------------------|-----------|-------------|
| 37 | 599 | (0) | 6228·4770 |
| 38 | 699 | (0) | 5100·3761 |
| 39 | 799 | (6) | 3633·6433 |
| 40 | 899 | (6) | 2505·5425 |
| 41 | 999 | (6) | 1377·4416 |
| 42 | 1099 | (6) | 249·3408 |
| 43 | 1199 | (6) | 9121·2399 |
| 44 | 1299 | (6) | 7993·1391 |
| 45 | 1399 | (5) | 6526·4063 |

For odd years of centuries use the *Siddhānta-Śirōmaṇi* Table LVII-B (above, Vol. XV).

TABLE XCIII.

MEAN SUNRISE VALUES OF a (DISTANCE OF MEAN MOON FROM MEAN SUN) IN 10,000THS OF CIRCLE FOR A MONTH PREVIOUS TO THE DAY ON WHICH MEAN MESHA-SAMKRĀNTI OCCURRED.

| Interval of days from mean Mēsha-samkrānti day. | Week-day. | a (mean sunrise value). | Interval of days from mean Mēsha-samkrānti day. | Week-day. | a (mean sunrise value). |
|---|-----------|---------------------------|---|-----------|---------------------------|
| 1 | 2 | 3 | 1 | 2 | 3 |
| 31 | (4) | 9502·4085 | 15 | (6) | 4920·5202 |
| 30 | (5) | 9841·0404 | 14 | (0) | 5259·1522 |
| 29 | (6) | 179·6724 | 13 | (1) | 5597·7842 |
| 28 | (0) | 518·3044 | 12 | (2) | 5936·4162 |
| 27 | (1) | 856·9364 | 11 | (3) | 6275·0482 |
| 26 | (2) | 1195·5684 | 10 | (4) | 6613·6801 |
| 25 | (3) | 1534·2004 | 9 | (5) | 6952·3121 |
| 24 | (4) | 1872·8324 | 8 | (6) | 7290·9441 |
| 23 | (5) | 2211·4643 | 7 | (0) | 7629·5761 |
| 22 | (6) | 2550·0963 | 6 | (1) | 7968·2081 |
| 21 | (0) | 2888·7283 | 5 | (2) | 8306·8401 |
| 20 | (1) | 3227·3603 | 4 | (3) | 8645·4721 |
| 19 | (2) | 3565·9923 | 3 | (4) | 8984·1040 |
| 18 | (3) | 3904·6243 | 2 | (5) | 9322·7360 |
| 17 | (4) | 4243·2563 | 1 | (6) | 9661·3680 |
| 16 | (5) | 4581·8882 | 0 | (0) | 0·0 |

The use of this Table is explained in Example 2 of this article, and in Example 1 of article on the *First Ārya-Siddhānta, mean system* (above, Vol. XVI).

TABLE XCIV.

TIME-EQUIVALENTS OF THE TITHI (a or t), NAKSHATRA (n), AND YŌGA (y) UNITS.

In very close cases it is sometimes necessary to calculate the exact moment of the beginning and ending of *tithis*, *nakshatras* and *yōgas*, with greater accuracy than can be obtained by the use of Table X, *Indian Calendar*, or Table LXX (*above*, Vol. XVI, p. 216), where the time-equivalent of the unit, respectively, is given only in hours and minutes. My general working Tables for several of the Hindu astronomical *Siddhāntas* already published yield results, stated in measurement by 10,000ths of the circle, with an accuracy extending to four places of decimals, and the following Table enables the result to be translated into time down to a fraction of a second. It may be used for all astronomical authorities.

The tithi-index unit.

The *tithi*-unit is $\frac{1}{10,000}$ th of a mean lunation. The mean lunation, according to the *Ārya*- and *Sūrya-Siddhāntas*, occupies $29^d 12^h 44^m 2^s.79$. The unit, or 10,000th part of this, is $4^m.2524046$, or $4^m 15^s.144279$.

The nakshatra-index unit.

The moon's *nakshatra*, or her position in the heavens, mean or true, is found by adding the *tithi*-index, a or t , to the index of the sun's longitude, s , mean or true. Both these values are found in the ordinary course of calculation for a date.

The mean *nakshatra*-value $n = 10,000$ is reached in $27^d 7^h 43^m 12^s.3$. In this period the sun's mean motion amounts, in 10,000ths of circle measurement, to 748.0087 (*Table XLIV above* (Vol. XIV)) and the moon's mean distance from mean sun increases (*Table LIV A, B* (Vol. XV)) to 9251.9913. Total 10,000.

$27^d 7^h 43^m 12^s.3 = 39343^m.205$, and this divided by 10,000 fixes the time-equivalent of the *nakshatra*-unit as $3^m.9343205$, or $3^m 56^s.05923$.

The yōga-index unit.

Similarly the *yōga-chakra* is estimated by the *Sūrya-Siddhānta* (*Indian Calendar*, p. 62, § 113) as occupying 36605.116 minutes of time, or $25^d 10^h 5^m 6^s.96$.¹ The *yōga*-unit therefore is $3^m.6605116$, or $3^m 39^s.6307$.

¹ The *yōga* formula is $y = s$ (sun's long.) + n (moon's *nakshatra*), and, since $n = s + a$, $y = 2s + a$. In the period noted it will be found by calculation, using Table XLIV (*above*, Vol. XIV), that the mean sun s arrives, in 10,000ths of circle measurement, at long. 695.9511; and by using Table LXIV (Vol. XVI) that in the same period the mean moon has increased her distance from mean sun (a) by 8608.0964. Twice $s = 1391.9022$, and this + 8608.0964 (the value of a) = 9999.9986, practically 10,000 exactly. Table LXIV was prepared according to the *First Ārya-Siddhānta*. Using *Siddhānta-Śirōmaṇi* and *Brahma-Siddhānta* estimates (*Table LIV*) the total amounts to 10,000.0015, I have as yet no similar Table according to *Sūrya-Siddhānta* requirements; but from what has been said it may be assumed that its estimate of the time occupied by one *yōga-chakra* (= 10,000) is correct.

TABLE XCIV-A.

TIME-EQUIVALENTS.

TITHI-INDEX UNITS.

(" Arg." = *a* or *t*.)

| Arg. | H. | M. | S. | Arg. | H. | M. | S. | Arg. | H. | M. | S. | Arg. | H. | M. | S. |
|------|----|----|-------|------|----|----|-------|------|----|----|-------|------|----|----|-------|
| 1 | 0 | 4 | 15.14 | 30 | 2 | 7 | 34.33 | 59 | 4 | 10 | 53.51 | 88 | 6 | 14 | 12.70 |
| 2 | 0 | 8 | 30.29 | 31 | 2 | 11 | 40.47 | 60 | 4 | 15 | 8.7 | 89 | 6 | 18 | 27.84 |
| 3 | 0 | 12 | 45.43 | 32 | 2 | 16 | 4.62 | 61 | 4 | 19 | 23.80 | 90 | 6 | 22 | 42.99 |
| 4 | 0 | 17 | 0.58 | 33 | 2 | 20 | 19.76 | 62 | 4 | 23 | 38.95 | 91 | 6 | 26 | 58.13 |
| 5 | 0 | 21 | 15.72 | 34 | 2 | 24 | 34.91 | 63 | 4 | 27 | 54.09 | 92 | 6 | 31 | 13.27 |
| 6 | 0 | 25 | 30.87 | 35 | 2 | 28 | 50.05 | 64 | 4 | 32 | 9.23 | 93 | 6 | 35 | 28.42 |
| 7 | 0 | 29 | 46.01 | 36 | 2 | 33 | 5.19 | 65 | 4 | 36 | 24.38 | 94 | 6 | 39 | 43.56 |
| 8 | 0 | 34 | 1.15 | 37 | 2 | 37 | 20.34 | 66 | 4 | 40 | 39.52 | 95 | 6 | 43 | 58.71 |
| 9 | 0 | 38 | 16.30 | 38 | 2 | 41 | 35.48 | 67 | 4 | 44 | 54.67 | 96 | 6 | 48 | 13.85 |
| 10 | 0 | 42 | 31.44 | 39 | 2 | 45 | 50.63 | 68 | 4 | 49 | 9.81 | 97 | 6 | 52 | 29.00 |
| 11 | 0 | 46 | 46.59 | 40 | 2 | 50 | 5.77 | 69 | 4 | 53 | 24.96 | 98 | 6 | 56 | 44.14 |
| 12 | 0 | 51 | 1.73 | 41 | 2 | 54 | 20.92 | 70 | 4 | 57 | 40.10 | 99 | 7 | 0 | 59.28 |
| 13 | 0 | 55 | 16.88 | 42 | 2 | 58 | 36.06 | 71 | 5 | 1 | 55.24 | 100 | 7 | 5 | 14.43 |
| 14 | 0 | 59 | 32.02 | 43 | 3 | 2 | 51.20 | 72 | 5 | 6 | 10.39 | 200 | 14 | 10 | 28.86 |
| 15 | 1 | 3 | 47.16 | 44 | 3 | 7 | 6.35 | 73 | 5 | 10 | 25.53 | 300 | 21 | 15 | 43.28 |
| 16 | 1 | 8 | 2.31 | 45 | 3 | 11 | 21.49 | 74 | 5 | 14 | 40.68 | 400 | 28 | 20 | 57.71 |
| 17 | 1 | 12 | 17.45 | 46 | 3 | 15 | 36.64 | 75 | 5 | 18 | 55.82 | 500 | 35 | 26 | 12.14 |
| 18 | 1 | 16 | 32.60 | 47 | 3 | 19 | 51.78 | 76 | 5 | 23 | 10.97 | 600 | 42 | 31 | 26.57 |
| 19 | 1 | 20 | 47.74 | 48 | 3 | 24 | 6.93 | 77 | 5 | 27 | 26.11 | 700 | 49 | 36 | 41.00 |
| 20 | 1 | 25 | 2.29 | 49 | 3 | 28 | 22.07 | 78 | 5 | 31 | 41.25 | 800 | 56 | 41 | 55.42 |
| 21 | 1 | 29 | 18.03 | 50 | 3 | 32 | 37.21 | 79 | 5 | 35 | 56.40 | 900 | 63 | 47 | 9.85 |
| 22 | 1 | 33 | 33.17 | 51 | 3 | 36 | 52.36 | 80 | 5 | 40 | 11.54 | 1000 | 70 | 52 | 24.28 |
| 23 | 1 | 37 | 48.32 | 52 | 3 | 41 | 7.50 | 81 | 5 | 44 | 26.69 | | | | |
| 24 | 1 | 42 | 3.46 | 53 | 3 | 45 | 22.65 | 82 | 5 | 48 | 41.83 | | | | |
| 25 | 1 | 46 | 18.61 | 54 | 3 | 49 | 37.79 | 83 | 5 | 52 | 56.98 | | | | |
| 26 | 1 | 50 | 33.75 | 55 | 3 | 53 | 52.94 | 84 | 5 | 57 | 12.20 | | | | |
| 27 | 1 | 54 | 48.90 | 56 | 3 | 58 | 8.08 | 85 | 6 | 1 | 27.28 | | | | |
| 28 | 1 | 59 | 4.04 | 57 | 4 | 2 | 23.22 | 86 | 6 | 5 | 42.41 | | | | |
| 29 | 2 | 3 | 19.18 | 58 | 4 | 6 | 38.37 | 87 | 6 | 9 | 57.55 | | | | |

TABLE XCIV-B.

TIME-EQUIVALENTS.

DECIMALS OF TITHI-INDEX UNITS.

| First 2
decimals. | M. S. | First 2
decimals. | M. S. | First 2
decimals. | M. S. | 3rd and
4th
decimals. | S. | 3rd and
4th
decimals. | S. | 3rd and
4th
decimals. | S. |
|----------------------|---------|----------------------|---------|----------------------|---------|-----------------------------|------|-----------------------------|------|-----------------------------|------|
| ·01 | 0 2·55 | ·34 | 1 26·75 | ·67 | 2 50·95 | ·0001 | 0·03 | ·0034 | 0·87 | ·0067 | 1·71 |
| ·02 | 0 5·10 | ·35 | 1 29·30 | ·68 | 2 53·50 | ·0002 | 0·05 | ·0035 | 0·89 | ·0068 | 1·73 |
| ·03 | 0 7·65 | ·36 | 1 31·85 | ·69 | 2 56·05 | ·0003 | 0·08 | ·0036 | 0·92 | ·0069 | 1·76 |
| ·04 | 0 10·21 | ·37 | 1 34·40 | ·70 | 2 58·60 | ·0004 | 0·10 | ·0037 | 0·94 | ·0070 | 1·79 |
| ·05 | 0 12·76 | ·38 | 1 36·95 | ·71 | 3 1·15 | ·0005 | 0·13 | ·0038 | 0·97 | ·0071 | 1·81 |
| ·06 | 0 15·31 | ·39 | 1 39·51 | ·72 | 3 3·70 | ·0006 | 0·15 | ·0039 | 1·00 | ·0072 | 1·84 |
| ·07 | 0 17·86 | ·40 | 1 42·06 | ·73 | 3 6·26 | ·0007 | 0·18 | ·0040 | 1·02 | ·0073 | 1·86 |
| ·08 | 0 20·41 | ·41 | 1 44·61 | ·74 | 3 8·81 | ·0008 | 0·20 | ·0041 | 1·05 | ·0074 | 1·89 |
| ·09 | 0 22·96 | ·42 | 1 47·16 | ·75 | 3 11·36 | ·0009 | 0·23 | ·0042 | 1·07 | ·0075 | 1·91 |
| ·10 | 0 25·51 | ·43 | 1 49·71 | ·76 | 3 13·91 | ·0010 | 0·26 | ·0043 | 1·10 | ·0076 | 1·94 |
| ·11 | 0 28·07 | ·44 | 1 52·26 | ·77 | 3 16·46 | ·0011 | 0·28 | ·0044 | 1·12 | ·0077 | 1·96 |
| ·12 | 0 30·62 | ·45 | 1 54·81 | ·78 | 3 19·01 | ·0012 | 0·31 | ·0045 | 1·15 | ·0078 | 1·99 |
| ·13 | 0 33·17 | ·46 | 1 57·37 | ·79 | 3 21·56 | ·0013 | 0·33 | ·0046 | 1·17 | ·0079 | 2·02 |
| ·14 | 0 35·72 | ·47 | 1 59·92 | ·80 | 3 24·12 | ·0014 | 0·36 | ·0047 | 1·20 | ·0080 | 2·04 |
| ·15 | 0 38·27 | ·48 | 2 2·47 | ·81 | 3 26·67 | ·0015 | 0·38 | ·0048 | 1·22 | ·0081 | 2·07 |
| ·16 | 0 40·82 | ·49 | 2 5·02 | ·82 | 3 29·22 | ·0016 | 0·41 | ·0049 | 1·25 | ·0082 | 2·09 |
| ·17 | 0 43·37 | ·50 | 2 7·57 | ·83 | 3 31·78 | ·0017 | 0·43 | ·0050 | 1·28 | ·0083 | 2·12 |
| ·18 | 0 45·93 | ·51 | 2 10·12 | ·84 | 3 34·32 | ·0018 | 0·46 | ·0051 | 1·30 | ·0084 | 2·14 |
| ·19 | 0 48·48 | ·52 | 2 12·68 | ·85 | 3 36·87 | ·0019 | 0·48 | ·0052 | 1·33 | ·0085 | 2·17 |
| ·20 | 0 51·03 | ·53 | 2 15·23 | ·86 | 3 39·42 | ·0020 | 0·51 | ·0053 | 1·35 | ·0086 | 2·19 |
| ·21 | 0 53·58 | ·54 | 2 17·78 | ·87 | 3 41·98 | ·0021 | 0·54 | ·0054 | 1·38 | ·0087 | 2·22 |
| ·22 | 0 56·13 | ·55 | 2 20·33 | ·88 | 3 44·53 | ·0022 | 0·56 | ·0055 | 1·40 | ·0088 | 2·25 |
| ·23 | 0 58·68 | ·56 | 2 22·88 | ·89 | 3 47·08 | ·0023 | 0·59 | ·0056 | 1·43 | ·0089 | 2·27 |
| ·24 | 0 61·23 | ·57 | 2 25·43 | ·90 | 3 49·63 | ·0024 | 0·61 | ·0057 | 1·45 | ·0090 | 2·30 |
| ·25 | 1 3·79 | ·58 | 2 27·98 | ·91 | 3 52·18 | ·0025 | 0·64 | ·0058 | 1·48 | ·0091 | 2·32 |
| ·26 | 1 6·34 | ·59 | 2 30·54 | ·92 | 3 54·73 | ·0026 | 0·66 | ·0059 | 1·51 | ·0092 | 2·35 |
| ·27 | 1 8·89 | ·60 | 2 33·09 | ·93 | 3 57·28 | ·0027 | 0·69 | ·0060 | 1·53 | ·0093 | 2·37 |
| ·28 | 1 11·44 | ·61 | 2 35·64 | ·94 | 3 59·84 | ·0028 | 0·71 | ·0061 | 1·56 | ·0094 | 2·40 |
| ·29 | 1 13·99 | ·62 | 2 38·19 | ·95 | 4 2·39 | ·0029 | 0·74 | ·0062 | 1·58 | ·0095 | 2·42 |
| ·30 | 1 16·54 | ·63 | 2 40·74 | ·96 | 4 4·94 | ·0030 | 0·77 | ·0063 | 1·61 | ·0096 | 2·45 |
| ·31 | 1 19·09 | ·64 | 2 43·29 | ·97 | 4 7·49 | ·0031 | 0·79 | ·0064 | 1·63 | ·0097 | 2·47 |
| ·32 | 1 21·65 | ·65 | 2 45·84 | ·98 | 4 10·04 | ·0032 | 0·82 | ·0065 | 1·66 | ·0098 | 2·50 |
| ·33 | 1 24·20 | ·66 | 2 48·40 | ·99 | 4 12·59 | ·0033 | 0·84 | ·0066 | 1·68 | ·0099 | 2·52 |

TABLE XCIV-C.

TIME-EQUIVALENTS.

NAKSHATRA-INDEX UNITS.

| Arg. | H. M. S. | Arg. | H. M. S. | Arg. | H. M. S. | Arg. | H. M. S. |
|------|------------|------|------------|------|------------|------|-------------|
| 1 | 0 3 56.06 | 31 | 2 1 57.84 | 61 | 3 59 50.61 | 91 | 5 58 1.30 |
| 2 | 0 7 52.12 | 32 | 2 5 53.90 | 62 | 4 3 55.67 | 92 | 6 1 57.45 |
| 3 | 0 11 48.18 | 33 | 2 9 49.95 | 63 | 4 7 51.73 | 93 | 6 5 53.51 |
| 4 | 0 15 44.24 | 34 | 2 13 46.01 | 64 | 4 11 47.79 | 94 | 6 9 49.57 |
| 5 | 0 19 40.30 | 35 | 2 17 42.07 | 65 | 4 15 43.85 | 95 | 6 13 45.63 |
| 6 | 0 23 36.36 | 36 | 2 21 38.13 | 66 | 4 19 39.91 | 96 | 6 17 41.69 |
| 7 | 0 27 32.41 | 37 | 2 25 34.19 | 67 | 4 23 35.97 | 97 | 6 21 37.75 |
| 8 | 0 31 28.47 | 38 | 2 29 30.25 | 68 | 4 27 32.03 | 98 | 6 25 33.80 |
| 9 | 0 35 24.53 | 39 | 2 33 26.31 | 69 | 4 31 28.09 | 99 | 6 29 29.86 |
| 10 | 0 39 20.59 | 40 | 2 37 22.37 | 70 | 4 35 24.15 | 100 | 6 33 25.92 |
| 11 | 0 43 16.65 | 41 | 2 41 18.43 | 71 | 4 39 20.21 | 200 | 13 6 51.85 |
| 12 | 0 47 12.71 | 42 | 2 45 14.49 | 72 | 4 43 16.26 | 300 | 19 40 17.78 |
| 13 | 0 51 8.77 | 43 | 2 49 10.55 | 73 | 4 47 12.32 | | |
| 14 | 0 55 4.83 | 44 | 2 53 6.61 | 74 | 4 51 8.38 | | |
| 15 | 0 59 0.89 | 45 | 2 57 2.67 | 75 | 4 55 4.44 | | |
| 16 | 1 2 56.95 | 46 | 3 0 58.72 | 76 | 4 59 0.50 | | |
| 17 | 1 6 53.01 | 47 | 3 4 54.78 | 77 | 5 2 56.56 | | |
| 18 | 1 10 49.07 | 48 | 3 8 50.84 | 78 | 5 6 52.62 | | |
| 19 | 1 14 45.13 | 49 | 3 12 46.90 | 79 | 5 10 48.68 | | |
| 20 | 1 18 41.18 | 50 | 3 16 42.96 | 80 | 5 14 44.74 | | |
| 21 | 1 22 37.24 | 51 | 3 20 39.02 | 81 | 5 18 40.80 | | |
| 22 | 1 26 33.30 | 52 | 3 24 35.08 | 82 | 5 22 36.86 | | |
| 23 | 1 30 29.36 | 53 | 3 28 31.14 | 83 | 5 26 32.92 | | |
| 24 | 1 34 25.42 | 54 | 3 32 27.20 | 84 | 5 30 28.98 | | |
| 25 | 1 38 21.48 | 55 | 3 36 23.26 | 85 | 5 34 25.03 | | |
| 26 | 1 42 17.54 | 56 | 3 40 19.32 | 86 | 5 38 21.09 | | |
| 27 | 1 46 13.60 | 57 | 3 44 15.38 | 87 | 5 42 17.15 | | |
| 28 | 1 50 9.66 | 58 | 3 48 11.44 | 88 | 5 46 13.21 | | |
| 29 | 1 54 5.72 | 59 | 3 52 7.49 | 89 | 5 50 9.27 | | |
| 30 | 1 58 1.78 | 60 | 3 56 3.55 | 90 | 5 54 5.33 | | |



TABLE XCIV-E.

TIME-EQUIVALENTS.

YOGA-INDEX UNITS.

| Arg. | H. | M. | S. | Arg. | H. | M. | S. | Arg. | H. | M. | S. | Arg. | H. | M. | S. |
|------|----|----|-------|------|----|----|-------|------|----|----|-------|------|----|----|-------|
| 1 | 0 | 3 | 39.63 | 31 | 1 | 53 | 28.55 | 61 | 3 | 43 | 17.47 | 91 | 5 | 33 | 6.39 |
| 2 | 0 | 7 | 19.26 | 32 | 1 | 57 | 8.18 | 62 | 3 | 46 | 57.10 | 92 | 5 | 36 | 46.02 |
| 3 | 0 | 10 | 58.89 | 33 | 2 | 0 | 47.81 | 63 | 3 | 50 | 36.73 | 93 | 5 | 40 | 25.65 |
| 4 | 0 | 14 | 38.52 | 34 | 2 | 4 | 27.44 | 64 | 3 | 54 | 16.86 | 94 | 5 | 44 | 5.29 |
| 5 | 0 | 18 | 18.15 | 35 | 2 | 8 | 7.07 | 65 | 3 | 57 | 56.00 | 95 | 5 | 47 | 44.92 |
| 6 | 0 | 21 | 57.78 | 36 | 2 | 11 | 46.71 | 66 | 4 | 1 | 35.63 | 96 | 5 | 51 | 24.55 |
| 7 | 0 | 25 | 37.41 | 37 | 2 | 15 | 26.34 | 67 | 4 | 5 | 15.26 | 97 | 5 | 55 | 4.18 |
| 8 | 0 | 29 | 17.05 | 38 | 2 | 19 | 5.97 | 68 | 4 | 8 | 54.89 | 98 | 5 | 58 | 43.81 |
| 9 | 0 | 32 | 56.68 | 39 | 2 | 22 | 45.60 | 69 | 4 | 12 | 34.52 | 99 | 6 | 2 | 23.44 |
| 10 | 0 | 36 | 36.31 | 40 | 2 | 26 | 25.23 | 70 | 4 | 16 | 14.15 | 100 | 6 | 6 | 3.07 |
| 11 | 0 | 40 | 15.94 | 41 | 2 | 30 | 4.86 | 71 | 4 | 19 | 53.78 | 200 | 12 | 12 | 6.14 |
| 12 | 0 | 43 | 55.57 | 42 | 2 | 33 | 44.49 | 72 | 4 | 23 | 33.41 | 300 | 18 | 18 | 9.21 |
| 13 | 0 | 47 | 35.20 | 43 | 2 | 37 | 24.12 | 73 | 4 | 27 | 13.04 | | | | |
| 14 | 0 | 51 | 14.83 | 44 | 2 | 41 | 3.75 | 74 | 4 | 30 | 52.67 | | | | |
| 15 | 0 | 54 | 54.46 | 45 | 2 | 44 | 43.38 | 75 | 4 | 34 | 32.30 | | | | |
| 16 | 0 | 58 | 34.09 | 46 | 2 | 48 | 23.01 | 76 | 4 | 38 | 11.93 | | | | |
| 17 | 1 | 2 | 13.72 | 47 | 2 | 52 | 2.64 | 77 | 4 | 41 | 51.56 | | | | |
| 18 | 1 | 5 | 53.35 | 48 | 2 | 55 | 42.27 | 78 | 4 | 45 | 31.19 | | | | |
| 19 | 1 | 9 | 32.98 | 49 | 2 | 59 | 21.90 | 79 | 4 | 49 | 10.83 | | | | |
| 20 | 1 | 13 | 12.61 | 50 | 3 | 3 | 1.53 | 80 | 4 | 52 | 50.46 | | | | |
| 21 | 1 | 16 | 52.24 | 51 | 3 | 6 | 41.17 | 81 | 4 | 56 | 30.09 | | | | |
| 22 | 1 | 20 | 31.88 | 52 | 3 | 10 | 20.80 | 82 | 5 | 0 | 9.72 | | | | |
| 23 | 1 | 24 | 11.51 | 53 | 3 | 14 | 0.43 | 83 | 5 | 3 | 49.35 | | | | |
| 24 | 1 | 27 | 51.14 | 54 | 3 | 17 | 40.06 | 84 | 5 | 7 | 28.98 | | | | |
| 25 | 1 | 31 | 30.77 | 55 | 3 | 21 | 19.69 | 85 | 5 | 11 | 8.61 | | | | |
| 26 | 1 | 35 | 10.40 | 56 | 3 | 24 | 59.32 | 86 | 5 | 14 | 48.24 | | | | |
| 27 | 1 | 38 | 50.03 | 57 | 3 | 28 | 38.95 | 87 | 5 | 18 | 27.87 | | | | |
| 28 | 1 | 42 | 29.66 | 58 | 3 | 32 | 18.58 | 88 | 5 | 22 | 7.50 | | | | |
| 29 | 1 | 46 | 9.29 | 59 | 3 | 35 | 58.21 | 89 | 5 | 25 | 47.13 | | | | |
| 30 | 1 | 49 | 48.92 | 60 | 3 | 39 | 37.84 | 90 | 5 | 29 | 26.76 | | | | |

TABLE XCIV-F.

TIME-EQUIVALENTS.

DECIMALS OF YOGA-INDEX UNITS.

| First 2
decimals. | M. | S. | First 2
decimals. | M. | S. | First 2
decimals. | M. | S. | 3rd and
4th
decimals. | S. | 3rd and
4th
decimals. | S. | 3rd and
4th
decimals. | S. |
|----------------------|----|-------|----------------------|----|-------|----------------------|----|-------|-----------------------------|------|-----------------------------|------|-----------------------------|------|
| ·01 | 0 | 2·20 | ·34 | 1 | 14·67 | ·67 | 2 | 27·15 | ·0001 | 0·02 | ·0034 | 0·75 | ·0067 | 1·47 |
| ·02 | 0 | 4·39 | ·35 | 1 | 16·87 | ·68 | 2 | 29·35 | ·0002 | 0·04 | ·0035 | 0·77 | ·0068 | 1·49 |
| ·03 | 0 | 6·59 | ·36 | 1 | 19·07 | ·69 | 2 | 31·55 | ·0003 | 0·07 | ·0036 | 0·79 | ·0069 | 1·52 |
| ·04 | 0 | 8·79 | ·37 | 1 | 21·26 | ·70 | 2 | 33·74 | ·0004 | 0·09 | ·0037 | 0·81 | ·0070 | 1·54 |
| ·05 | 0 | 10·98 | ·38 | 1 | 23·46 | ·71 | 2 | 35·94 | ·0005 | 0·11 | ·0038 | 0·83 | ·0071 | 1·56 |
| ·06 | 0 | 13·18 | ·39 | 1 | 25·66 | ·72 | 2 | 38·13 | ·0006 | 0·13 | ·0039 | 0·86 | ·0072 | 1·58 |
| ·07 | 0 | 15·37 | ·40 | 1 | 27·85 | ·73 | 2 | 40·33 | ·0007 | 0·15 | ·0040 | 0·88 | ·0073 | 1·60 |
| ·08 | 0 | 17·57 | ·41 | 1 | 30·05 | ·74 | 2 | 42·53 | ·0008 | 0·18 | ·0041 | 0·90 | ·0074 | 1·63 |
| ·09 | 0 | 19·77 | ·42 | 1 | 32·24 | ·75 | 2 | 44·72 | ·0009 | 0·20 | ·0042 | 0·92 | ·0075 | 1·65 |
| ·10 | 0 | 21·96 | ·43 | 1 | 34·44 | ·76 | 2 | 46·92 | ·0010 | 0·22 | ·0043 | 0·94 | ·0076 | 1·67 |
| ·11 | 0 | 24·16 | ·44 | 1 | 36·64 | ·77 | 2 | 49·12 | ·0011 | 0·24 | ·0044 | 0·97 | ·0077 | 1·69 |
| ·12 | 0 | 26·36 | ·45 | 1 | 38·83 | ·78 | 2 | 51·31 | ·0012 | 0·26 | ·0045 | 0·99 | ·0078 | 1·71 |
| ·13 | 0 | 28·55 | ·46 | 1 | 41·03 | ·79 | 2 | 53·51 | ·0013 | 0·29 | ·0046 | 1·01 | ·0079 | 1·74 |
| ·14 | 0 | 30·75 | ·47 | 1 | 43·23 | ·80 | 2 | 55·70 | ·0014 | 0·31 | ·0047 | 1·03 | ·0080 | 1·76 |
| ·15 | 0 | 32·94 | ·48 | 1 | 45·42 | ·81 | 2 | 57·90 | ·0015 | 0·33 | ·0048 | 1·05 | ·0081 | 1·78 |
| ·16 | 0 | 35·14 | ·49 | 1 | 47·62 | ·82 | 3 | 0·10 | ·0016 | 0·35 | ·0049 | 1·08 | ·0082 | 1·80 |
| ·17 | 0 | 37·34 | ·50 | 1 | 49·82 | ·83 | 3 | 2·29 | ·0017 | 0·37 | ·0050 | 1·10 | ·0083 | 1·82 |
| ·18 | 0 | 39·53 | ·51 | 1 | 52·01 | ·84 | 3 | 4·49 | ·0018 | 0·40 | ·0051 | 1·12 | ·0084 | 1·84 |
| ·19 | 0 | 41·73 | ·52 | 1 | 54·21 | ·85 | 3 | 6·69 | ·0019 | 0·42 | ·0052 | 1·14 | ·0085 | 1·87 |
| ·20 | 0 | 43·93 | ·53 | 1 | 56·40 | ·86 | 3 | 8·88 | ·0020 | 0·44 | ·0053 | 1·16 | ·0086 | 1·89 |
| ·21 | 0 | 46·12 | ·54 | 1 | 58·60 | ·87 | 3 | 11·08 | ·0021 | 0·46 | ·0054 | 1·19 | ·0087 | 1·91 |
| ·22 | 0 | 48·32 | ·55 | 2 | 0·80 | ·88 | 3 | 13·28 | ·0022 | 0·48 | ·0055 | 1·21 | ·0088 | 1·93 |
| ·23 | 0 | 50·52 | ·56 | 2 | 2·99 | ·89 | 3 | 15·47 | ·0023 | 0·51 | ·0056 | 1·23 | ·0089 | 1·95 |
| ·24 | 0 | 52·71 | ·57 | 2 | 5·19 | ·90 | 3 | 17·67 | ·0024 | 0·53 | ·0057 | 1·25 | ·0090 | 1·98 |
| ·25 | 0 | 54·91 | ·58 | 2 | 7·39 | ·91 | 3 | 19·86 | ·0025 | 0·55 | ·0058 | 1·27 | ·0091 | 2·00 |
| ·26 | 0 | 57·10 | ·59 | 2 | 9·58 | ·92 | 3 | 22·06 | ·0026 | 0·57 | ·0059 | 1·30 | ·0092 | 2·02 |
| ·27 | 0 | 59·30 | ·60 | 2 | 11·78 | ·93 | 3 | 24·26 | ·0027 | 0·59 | ·0060 | 1·32 | ·0093 | 2·04 |
| ·28 | 1 | 1·50 | ·61 | 2 | 13·97 | ·94 | 3 | 26·45 | ·0028 | 0·61 | ·0061 | 1·34 | ·0094 | 2·06 |
| ·29 | 1 | 3·69 | ·62 | 2 | 16·17 | ·95 | 3 | 28·65 | ·0029 | 0·64 | ·0062 | 1·36 | ·0095 | 2·09 |
| ·30 | 1 | 5·89 | ·63 | 2 | 18·37 | ·96 | 3 | 30·85 | ·0030 | 0·66 | ·0063 | 1·38 | ·0096 | 2·11 |
| ·31 | 1 | 8·09 | ·64 | 2 | 20·58 | ·97 | 3 | 33·04 | ·0031 | 0·68 | ·0064 | 1·41 | ·0097 | 2·13 |
| ·32 | 1 | 10·28 | ·65 | 2 | 22·76 | ·98 | 3 | 35·24 | ·0032 | 0·70 | ·0065 | 1·43 | ·0098 | 2·15 |
| ·33 | 1 | 12·48 | ·66 | 2 | 24·96 | ·99 | 3 | 37·43 | ·0033 | 0·72 | ·0066 | 1·45 | ·0099 | 2·17 |

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 Museum Library, ditto.
 University Library, ditto.
 Oriental College Library, Lahore.
 Secretariat Library, Nagpur.
 Museum Library, ditto.
 Secretariat Library, Rangoon.
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 College Library, Dacca.
 Itihasa Somsodhak Mandal, Poona.
 Museum Library, Lucknow.
 The Mythic Society, Bangalore.
 Department of Education Library, Delhi.
 Government College Library, Kumbakonam.
 Pachaiyappa's College Library, Madras.
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 Sanskrit College Library, Myslapore.
 Government College Library, Rajahmundry.
 Maharajah's College Library, Trivandrum.
 Sanskrit College Library, Tiruvadi (Tanjore).
 Maharajah's College Library, Vizayanagaram.
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No. 16.—VELVIKUDI GRANT OF NEDUNJADAIYAN: THE THIRD YEAR OF REIGN.

By H. KRISHNA SASTRI, B.A., OOTACAMUND.

Sixteen years ago, when Mr. Venkayya in his Epigraphical Report for 1908 (pp. 50 ff) discussed with great ability the contents of the fourth of the early Pāṇḍya copper-plates discovered till then, he remarked: "The originals of these plates have not been traced. The following account of them is based on a preliminary study of two excellent impressions belonging probably to Sir Walter Elliot's collections kindly placed at my disposal by Dr. Fleet in 1893." These duplicate impressions of the grant now in the editor's possession, are marked by Dr. Fleet "I-n-11" and must have been originally intended for publication in the *Indian Antiquary*. Mr. Venkayya, however, could not at once prepare an article on them, as the early Pāṇḍya chronology was then obscure. About the end of 1915, Dr. L. D. Barnett of the British Museum, London, sent me impressions of a copper-plate inscription preserved in that institution and wished to know if it had been published and what its contents were. Curiously enough, it happened that these were the very same impressions of which Mr. Venkayya was unable to trace the originals. I wrote back to Dr. Barnett informing that the plates contained on them an important Pāṇḍya grant which had been already noticed in the Epigraphical Report for 1908 and asked for certain details about them. He says briefly: "There is no seal on the grant: the plates are held by a thin copper-ring, which has been cut." The detailed measurement of the plates and their number, consequently, remain to be what has been described by Mr. Venkayya, viz., these are **ten copper-plates**, of which the first seven are numbered on the left margin on their inner sides and the impressions measure $10\frac{1}{2}$ " by $3\frac{1}{2}$ ", the first and the last plates being written only on their inner sides.

The writing on the plates is both in the Grantha and Vaṭṭeḷuttu characters, the first being used in Sanskrit passages (ll. 1 to 30 and ll. 142 to 150) and in all Sanskrit words that occur in the Tamil portion of the inscription. The Grantha characters and orthography do not call for any special remarks except that in almost all conjunct consonants, where they are written one below the other, the upper or the first member of the compound letter is marked by the *virāma*, following evidently the Tamil method of writing. The same influence is also observed in the pronunciation and spelling of Sanskrit words, e.g., *pārakan* and *purōkan* (l. 99), *kritāpatānan* (l. 100) and *kaṇḍakanishṭuran* (l. 100 f.). In one particular case, the purely Tamil word *antanar* (l. 61) is written partly in Grantha and partly in Tamil. The use of *tsha* for *ksha* (l. 144), *uma* for *tma*, *dma* for *lma* and *ri* for *ṛi* or *ru*, in compound letters, also shows the same influence. Consonants coming after *r* are always doubled except in °मर्त्त° in line 14 and °तिर्त्त° in line 17. The *upadhmanīya* and *jihvāmālīya* symbols are used throughout in their proper places. The *anusvāra* used in *-varggaṇ-yulhi* (l. 14) and in *saṃyati* (l. 28) is worth noticing. It denotes the *anunāsika* forms of *yu* and *ya* and is shaped in the form of a crescent with a dot in it placed over the heads of these letters. In his commentary on Pāṇini VIII-4-59 Bhaṭṭoji-Dikshita remarks that the *anusvāra* in such cases changes itself optionally into the nasal form of *ya*.

The Vaṭṭeḷuttu character so called, is an oblique form of Tamil (excepting certain letters) with a few angularities which on careful scrutiny could be easily accounted for. The only four letters in the alphabet whose form cannot be explained with reference to Tamil are the vowel letters *i* (உ) (see *irakki*° in line 40), *ai* (ஈ) (see *uimpadiṇṇar* in line 135) and the more frequently occurring *ṇa* (ஞ) and *po* (ஔ). In the matter of the Vaṭṭeḷuttu palaeography of this inscription it might be noted (1) that the *pulli* is correctly inserted throughout the inscription except in a few cases, e.g., *vōḷḷi*= (l. 31), *ottirattum*= (l. 47 f.), *aṇṇam* (*ibid.*), *-avaraku* (l. 46) and *vēḷṇi*° (l. 37); (2) that it is unnecessarily inserted over the vocalic *e* and *o* and even

over the initial vowel letter *o*, as in *monṇum*, *chchor*, (l. 34), *koṛkai*, *korraṇ*, *koṇḍa* (l. 35), *dēy* (l. 38), *goḷi* (l. 43), *neṇṇuni* (l. 45), *rrennan* (l. 46), *kkolai*, *chcheḷiyaṇ* (l. 50), *olḡāda* (l. 108 f.), *oḷḡāda* (l. 109), *poḷil* (l. 65), *pporu* (l. 63), *poruṭṭāga* (l. 71); and (3) that it is omitted in a few cases. The shaping of the long *ā*-sign in *rā* (l. 119), *nū* (l. 107) and *lā* (l. 76) and the use of the Tamil *aḷabeḍai* (Skt. *pluta*) in *kkolṭiya* in line 97 for the purpose of completing the metrical quantity are worthy of notice. This *aḷabeḍai* according to the Tamil grammarians is to be used in (i) selling articles, (ii) calling people at a distance and (iii) in filling up the metrical quantity in a verse. Pāṇini omits (i) and (iii). While in Sanskrit only vowels have *pluta*, in Tamil the consonants (nasals and sibilants) are also thus lengthened.

The orthographical peculiarities such as the insertion of *y* after consonants with the *e*-sign (ll. 94, 97 f.); the substitution of the vowel *i* for *yi* (ll. 66, 115, 118, 140); the non-observance of euphonic rules in adding the suffixes *um* (l. 93), *uḷ* (l. 59), *in* (l. 93) and *oḍu* (l. 46 f.); the want of distinction between the long and the short *i* (except in the single instance *nīrōḍ=aiṭṭi* in line 117) and between the long and the short *o*, are noteworthy. *Pūli-ār* (l. 58), *°maiṭṭi-iruppai* (l. 121 f.), *chey-iḍai* (l. 122), *maṇi-imai* (l. 81), *kkali-araiṣaṇ* (l. 90), *kurai-uṟu* and *nirai-uṟu* (l. 102) are also cases of the omission of *sandhi*. *Paramēśvaraṇār-Vēḷvikuḍi* (l. 110) for *°nāl Vēḷvikuḍi* and *veḷirpaṭṭu* for *veḷippaṭṭu* (ll. 41, 49, 52, 88) are evidently wrong forms; *sekkuni* (l. 120) for *seykkuni* and *aimpudiṇṇar* (l. 135) for *aimpadiṇṇar* may be regarded as colloquial usages: similar also may be the use of *kuḍu* (l. 125) for *koḍu*. The form *iydu* (l. 152) for *idu* through the intermediate form *ihdu* probably gives us the clue for the correct pronunciation of the Tamil *āydam*-sign which is now pronounced as the *jīhvāmūliya* and the *upadhmānīya* forms of the *visarga*. The metre used in the Tamil portion of the inscription is the *Agaval* while in the Sanskrit portion the metres employed are: *Vamśastha* (vv. 1, 12), *Anuṣṭubh* (vv. 2, 17, 20 and 23), *Vasantatilakā* (vv. 3, 9 and 19), *Śārdūlavikṛtita* (vv. 4, 5, 6 and 10), *Mālabhārini*¹ (vv. 7, 8, 15 and 16), *Upēndravajrā* (vv. 11, 14), *Drutavilambita* (v. 13) and *Āryā* (v. 18).

Palaeographically, the Grantha characters of the Vēḷvikuḍi grant differ from those of the Madras Museum plates of Jaṭilavarman,² although for reasons stated in the sequel, both of these have to be attributed to the period of the same king Neḍuṇṇaḍaiyaṇ. The difference is distinctly observed in the formation of the *serif* which in the first case is a plain horizontal line, whereas in the second, it makes a loop with the letter. The bottoms of letters like *ma* and *ba* and the top of the vowel *i* are bent at the base line in the Vēḷvikuḍi grant, whereas in the Madras Museum plates they either form one uniform curve, or are straight; the *upadhmānīya* and the *jīhvāmūliya* signs are not used at all in the Madras Museum plates. The punctuation marks at the end of verses in the Vēḷvikuḍi grant are the *piḷḷaiyār tūḷi* (௧) whereas in the Madras Museum plates they are denoted by the so-called *ōm* symbol (ॐ)³; *anuvāras* are more frequent in the Madras Museum plates than nasal conjuncts. The Vēḷvikuḍi grant, in numbering the plates, uses the Grantha letter-symbols, whereas the Madras Museum plates use the usual Tamil numerals. In the Vaṭṭeḷuttu alphabet employed, however, the two grants do not seem to differ much, except in the case of the letter *ya* which in the Vēḷvikuḍi grant as in the Āpaimalai inscription,⁴ is uniseptate, while in the Madras Museum plates it is bipartite. This single difference in the characters of the Tamil portion which is the earlier, and perhaps constitutes the grant proper in both, need not show that the two grants must belong to different periods. The

¹ The scheme of this verse as given in the *Chāṇḍōmañjarī* is:—

निषने ससजा यदा गुह चैत् सभरा येन तु मालभारिणीयम् ॥

² *Ind. Ant.*, Vol. XXII, with Plate, pp. 57 ff.

³ The latest interpretation of this symbol is *siddhāḥ*, 'success.'

⁴ Above, Vol. VIII, p. 317 ff.

insertion of the Grantha portion in the Velvikudi grant might have been somewhat earlier than that in the Madras Museum plates.

The Sanskrit portion of the record commences with an invocation to Śiva (verse 1) and goes on to refer in general terms to the Pāṇḍya kings and their race, of which the family priest was the sage Agastya¹ (vv. 2 and 3). At the end of the previous *Kalpa*, it is stated, there was a powerful king named Pāṇḍya who was ruling at the entrance into the sea (i.e., on the coast of a gulf) and that the very same king at the beginning of the current *Kalpa* was born as Budha, the son of the Moon (v. 4). His son was Purūravas; and in his family, whose crest was a pair of fish, which shared with Indra, the lord of gods, half of his throne and his necklucio and was a party in the purāṇic churning of the milk-ocean, was born king Māṇavarman, a patron of the learned (vv. 6 and 8). His son was Raṇadhira (v. 9) and his son Māṇavarman II Rājasimha (vv. 10 and 11) at whose presence the king Pallavamalla ran away from the battle-field (v. 12). This king Rājasimha married a Malava princess and by her begot king Jaṭila (v. 14), who was also called Parāntaka (v. 17). Thus ends the short Sanskrit eulogy (*prasaṣti*) which was composed by the *Sarvakraṭuyājīn* Varōdaya-Bhaṭṭa (l. 30).

We may now pass on to what the bigger and the more important part of the record, the Tamil *prasaṣti*, has to say, with the remark that the Sanskrit portion, by its brief notice and the very meagre historical material which it supplies in the form of a general introduction, could not have been contemporaneous with the Tamil portion. It was evidently added only later to give a dignified appearance to the grant proper which is in Tamil. This Tamil portion begins with the mention of a past event, namely, that the *kēḷvi*-Brahmans² of Pāṇḍūr-Kūrṇam seeing that one of their own community, named Naṅkorraṇ, the headman of Korṅkai, who had contemplated the performance of a Vēdic sacrifice, with the help of the ruling Pāṇḍya king (*ādhirāja*) Palyāgamudukuḍumi Peruvaḷudi, placed his petition before the king and themselves standing in front of the sacrificial hall, blessed that spot to be thenceforth (?) called Velvikudi.³ The king granted the village to Naṅkorraṇ and it was thus that the village came to be enjoyed by the latter for a long time. After this, a powerful Kali king, named Kaḷabhraṇ, conquering many *ādhirājas*, brought under subjection the whole Pāṇḍya country including, of course the village Velvikudi which was then resumed. Some time elapsed and after this sprang forth a powerful Pāṇḍya, named Kaḍuṅgōṇ, who reconquered the whole land from his enemies. His son was Avanichūḷamaṇi Māṇavarman. His son was Śeḷiyaṇ Vāṇavaṇ Śēndan and his son, Arikēsari Asamasamaṇi Māṇavarman, who won a battle at Pēli against his enemies; defeated a certain Vilvēli at Nelvēli; destroyed the Paravas and the people of Kuṟu-nāḍu; won a victory at Śeṇṇilam, conquered the Kēraḷa several times at the strongly fortified town of Puliyūr; made many gifts and protected the Brāhmaṇas and the invalids. His son was Śaḍaiyaṇ, the lord of the Kōṅga country (Kōṅgarkōmāṇ), who was possessed of the titles Teṇṇa-Vāṇavaṇ, Śēmbiyaṇ, Śōḷaṇ and Madura-Karunāṭakan.⁴ won a battle at Marudūr,

¹ Agastya is also supposed to have been the founder of the Tamil language and the author of the Tamil grammar *Aṇṭṭiyam* mentioned in Tamil literature. He is referred to as the family priest of the Pāṇḍyas also in Kālidāsa's *Raghuramāṇa*, VI. 61, and in the commentary on *Iṇṇaiyaṇār Agapporuḷ*.

² *Kēḷvi-andaṇālar* may also mean 'learned Brāhmaṇas'. But *kēḷvi* seems to be used here in a technical sense. In inscriptions we find the word applied to a class of administrative officers whose business was to carry the applications of petitioners to the 'hearing' of the king. See also *Ep. Ind.* Vol. III, p. 69, foot-note 7.

³ I.e., the village of the sacrifice. In the Tamil portion in l. 108 f. it is stated that the village had the name Velvikudi given to it by king Mudukuḍumi.

⁴ The significance of this title is not apparent. Could it be that like Śēmbiyaṇ and Śōḷaṇ he could have acquired it by conquering the Western Chālukyas who were known as Karnāṭakas? But we know that these were too far away from the reach of the Pāṇḍyas. Another possible explanation is that the Pāṇḍyas might have intermarried with the Chālukyas and the issue of such an intermarriage might well be called 'the Sweet Karnāṭaka'! Again, the identification of the Kaḷabhra with Karnāṭa by Mr. Venkayya (see below p. 295) seems to gain in significance in considering the propriety of the title Madura-Karunāṭakan held by king Śaḍaiyaṇ.

defeated **Āyavēl** in battles at **Seṅgoḍi** and **Pudāṅkōḍu**, destroyed the **Mahārathas** at the big town (*Mahānagara*) of **Māṅgalapuram** and stamped the symbols of the bow; the tiger and the fish on the big mountain, viz., the Himalayas. This shows his supreme authority over the **Chēra**, **Chōla** and **Pāṇḍya** countries, whose symbols were the bow, the tiger and the fish, respectively. His son was **Tēr-Māraṇ** who routed his enemies at **Neḍuvayal**, **Kurumaḍai**, **Maṇṇi-Kurichohi**, **Tirumaṅgai**, **Pūvalūr** and **Koḍumbālūr**, defeated the **Pallava**¹ king and captured his elephants and horses in the battle of **Kuḷumbūr**, crushed his enemies at **Periyālūr** crossed the **Kāviri** (i.e., the river **Kāvēri**), subdued (the country of) **Māla-Koṅgam**, reached **Pāṇḍi-kKoḍumiḍi**, worshipped **Paśupati** (i.e., **Śiva**), contracted marriage relations with **Gaṅgarāja**² and renewed the fortifications of **Kūḍal**, **Vaṇṇi** and **Kōḷi**. His son was **Parāntaka Neḍuñjaḍaiyaṇ**, who drove the **Kāḍava** (i.e., the **Pallava**) into the forest, after defeating him in the battle of **Peṇṇāgaḍam** on the southern bank of the river **Kāviri** and won a battle at **Nāṭṭukkuṟumbu** driving away the **Āyavēl** and the **Kurumbas** to the forest. This king possessed a long list of *birudas* such as **Śrivarāṇ**, **Śiṇa-chChōḷaṇ**, **Puṇa-pPūliyaṇ**, etc., enumerated in *U.* 98 ff.

In the third year of the reign of this last mentioned king, a man having arrived at **Kūḍal** with a loud complaint, the king himself enquired into the matter with kind words and hearing from him how his village **Vēlvikuḍi** in **Pāṅaṇūr-kāṇṇam**, originally granted under that name by his ancestor, the great king (*Paramēśvaran*) **Palyāgamudukuḍumi Peruvaḷudi**, was resumed by the **Kuḷabhra** and had since then remained so even after the resumption of Government by the **Pāṇḍyas**, he ordered the applicant to produce the necessary evidence before the *nāḍu* to prove that the village was his from early times and thus to get it back. The complainant proved his claim accordingly and the king renewed the grant to the applicant **Kāmakkāṇi Narchiṅgaṇ**, the headman of **Koṟkai**. The *anatti* of the grant was **Madavikalāṇ Māraṅgāri alias Mūvēndamaṅgala-Ppēraraiyaṇ**, the crest-jewel of the **Vaidyakas** and a native of **Karavandepura**, and a favourite of the king of kings (i.e., the **Pāṇḍya** king **Neḍuñjaḍaiyaṇ**). It is stated of this **Māraṅgāri** that he fought bravely in the fight that ensued between the kings of the Eastern country (*Pūrva-rājar*) and **Vallabha** on the occasion when the daughter of **Gaṅgarāja** (the **Gaṅga** king) was procured for **Koṅgar-kōṇ**.

Ll. 134 to 141 repeat that the owner of this *brahmadēya* (viz., **Vēlvikuḍi**) was **Kāmakkāṇi Suvarāṇ-Siṅgaṇ**, the headman of **Koṟkai**, by which perhaps the **Narchiṅgaṇ**, just mentioned, must be referred to. The composer of the Tamil *praśasti* was the *Sēnāpati* **Ēnādi alias Śāttan Śāttan**. This brings us to the end of the Tamil portion. The next Sanskrit verse speaking of the *ājñapti* of the grant says that he was **Māṅgalarāja Madhuratara**, a **Vaidyaka** and a master of the *Śāstras*, a poet and an orator. Then follow four imprecatory verses which are expressly stated to be quoted from the **Vaishṇava-Dharma**. A Tamil prose passage coming after this says that the king himself ordered the engraving of this copper-plate grant and that the engraver was a certain **Yuddhakēsari Perumbaṇaikkāraṇ**.

In noticing these plates in his *Annual Report on Epigraphy* for 1908, pp. 50 ff., Mr. Venkayya has already made it clear how *Kalpa-kṣayaḍi* in v. 4 has to be understood with reference to the traditional account of the deluge³ or tidal wave in the **Pāṇḍya** country and to the survival of a king of the old **Pāṇḍya** line "of the race of the Moon and in all respects corresponding," under the name **Budha**. Similarly also, the mythical boast of the **Pāṇḍya** kings to have engraved their crest on the top of the Himalayas and to have shared one-half of **Indra's** throne and worn the garland of the king of the gods, has been shown to occur frequently in the later **Pāṇḍya** inscriptions. **Palyāgamudukuḍumi-Peruvaḷudi** is a historically famous **Pāṇḍya** king in whose honour

¹ The name of this **Pallava** king, which begins with *Se*, is hopelessly damaged on the impression.

² Evidently the same mentioned in connection with the next king, his son **Neḍuñjaḍaiyaṇ**.

³ Old Madura is supposed to have been washed away by the sea : see commentary on *Agapporu*, p. 4.

five poems are known to have been sung by three famous Śaṅgam¹ poets and included in the Tamil anthology called *Puraṇṇūru*. In one of these he is stated to have captured the extensive forts of his enemies and to have destroyed and ploughed their streets with a team of white-mouthed asses. This way of dealing with the conquered countries seems to be a very old one. Dr. S. Konow points out that there is a reference to it in the Hathigumpha inscription of Khāravela.² It is mentioned also in some inscriptions of the later Pāṇḍya king Māṇavarman Sundara-Pāṇḍya I. The Kaṭabha occupation of the Madura country and the consequent interregnum are also noted by Mr. Venkayya with the remark that the Kaṭabha may be the Kaṇṇa. After the interregnum came Kaṭuṅḡṇ with whom the first academy (Śaṅgam) of Tamil poets is supposed to have come to an end. The list of the kings that followed Kaṭuṅḡṇ to the donor Neḍuñjaḍaiyan is given in a genealogical table on p. 54 of the *Annual Report on Epigraphy* for 1908, together with further information supplied about them by two other sets of Pāṇḍya copper-plates³ secured from Śiṅṅamaṇṇr. Mr. Venkayya thinks that Neḍuñjaḍaiyan of the Vēlvikuḍi grant must be different from Neḍuñjaḍaiyan of the Madras Museum plates published by him in the *Indian Antiquary*, not only on the strength of certain palaeographical differences already noted above but also on account of the different engravers who in the one case was Yuddhakēsari Pāṇḍiya-Pperumbaṇaikkāraṇ and in the other, Pāṇḍi-Pperumbaṇaikkāraṇ alias Arikēsari. He further identifies Neḍuñjaḍaiyan of the Vēlvikuḍi plates with Māṇjaḍaiyan of the Āṇaimalai cave inscription; for, between these two there is not only palaeographical similarity, but also it happens that the *ājñapti* of the former is the prime minister mentioned in the latter, both being called Māraṅgāri Mūvēndamaṅgalappērarniyaṇ, members of the Vaidya (or Vaidyaka) family and natives of Karavandapura with the attributes *Maduratara* and *Kari*. Consequently, the two kings Neḍuñjaḍaiyan and Māṇjaḍaiyan, who both bore the same surname Parāntaka, must be identical and the date of the Vēlvikuḍi grant must be about A.D. 769-70 which is the date of the Āṇaimalai inscription.

About the military achievements of Neḍuñjaḍaiyan we learn from this inscription that he defeated the Kāḍava king at Peppāṇḍam on the southern bank of the Kāvēri river and drove the Āyavēl and the Kuṇḁbas in a battle fought at Nāṭṭukkuṇḁmbu. Again, a statement made about the *ājñapti* of the grant in lines 126-129, adds that Māraṅgāri rendered valuable service to his master Neḍuñjaḍaiyan by defeating a certain Vallabha at Veṇbai, on the occasion when the eastern kings secured the hand of the Gaṅga princess in marriage for Koṅgarkōṇ. Here Koṅgarkōṇ in order to suit the context, must be taken to be a surname of the Pāṇḍya king Neḍuñjaḍaiyan himself. This is not improbable, inasmuch as his grandfather Śaḍaiyan is also called in the inscription (Text, l. 70), Koṅgarkōmāṇ, and his father Tēr-māṇ is stated to have contracted relationship with the Gaṅga king (Text, l. 84). This latter event perhaps refers to the occasion when Māraṅgāri achieved the success mentioned above.

In spite of what Mr. Venkayya thinks about the identity of the kings mentioned in the Vēlvikuḍi plates and the Madras Museum plates there are strong reasons to believe that both refer to the same king. For, the ruling king Parāntaka Neḍuñjaḍaiyan and his *birudas* Paṇḍi-tavatsala, Virapurōga and Vikramapāruga occur in both. Further, the surname Śrīvaramaṅgala given to the granted village Vēlaṅḁuḍi in the Madras Museum plates makes it clear that the king must have also had the *biruda* 'Śrīvara' which we find actually given to him in the Vēlvikuḍi plates.⁴ The special mention of Mūrti Eyinaṇ in l. 136 of the Vēlvikuḍi plates as

¹ According to tradition there were three Śaṅgams or old academies of Tamil Poets. The date of the last of these has been widely discussed. The latest pronouncement on the subject is that it must have come into existence some time after the 5th Century A. D.

² *Acta Orientalia*, Vol. I, Part I, p. 23f.

³ These plates are under publication by me in the *Epigraphia Indica*.

⁴ Mr. K. V. Subrahmanya Ayyar also supposes it to be so; vide his *Sketches of Ancient Dehkan*, pp. 103 ff.

one of the fifty Brāhmaṇa sub-doneses marks him out as an important personage. From the Ānaimalai inscriptions, we know that Eyinaṇ was an epithet or surname held by Māraṇ Eyinaṇ, the younger brother of Māraṅgāri himself. Perhaps Māraṇ Eyinaṇ and Mūrti Eyinaṇ were both younger brothers of Māraṅgāri. The *ajñapti* of the Madras Museum plates was Dhīrataran Mūrti Eyinaṇ, who was one of the *mahā-sāmantas* of the king. There is little doubt that Mūrti Eyinaṇ of our plates and Dhīrataran Mūrti Eyinaṇ of the Madras Museum plates are identical and that thus also the king Neḍuñjaḍaiyaṇ mentioned in both these sets of plates is one and the same. If this identification is accepted the two allied plates together supply the full list of the military exploits of Neḍuñjaḍaiyaṇ. By the third year of his reign (the date of the present grant) Neḍuñjaḍaiyaṇ must have subdued the Āyavēl and the Kuṟumbar and defeated the Pallavas south of the Kāviri; but before his 17th year (the date of the Madras Museum plates) he had carried his conquests right into the heart of the Koṅgu country and taken possession of it by defeating its king Adiyaṇ and his allies the Pallavas and the Kēraḷas. The conquest of the Koṅgu country and the desire to possess it seem to have been very strong with the Pāṇḍya kings. For, Śaḍaiyaṇ, the grandfather of Neḍuñjaḍaiyaṇ, held the title 'Lord of the Koṅgas' and his father Tēr-Māraṇ actually crossed the Kāviri, subjugated Maḷa-Koṅgam and had invaded that country even as far as Pāṇḍi-kKoḍumuḍi. Neḍuñjaḍaiyaṇ seems only to have followed in the footsteps of his ancestors in subduing the Koṅga-bhūmi, as far as the land of the Gaṅgas. The information that a Gaṅga princess was married into the Pāṇḍya family is not mentioned in any of the Gaṅga records of this period which falls into the reign of Śivamāra I (755 to 765 A.D.). The Vallabha or the Western Chalukya king who was defeated on this marriage occasion was probably Kīrtivarman II who succeeded to the Chalukya throne in A.D. 746 or 747 and whose army is stated in his records to have defeated the army of the Kēraḷas, the Chōḷas and the Pāṇḍyas.

From what is stated of the countries of Koṅgu and Kēraḷa in these inscriptions of Neḍuñjaḍaiyaṇ, it is not difficult to see that the former was bounded on the east and perhaps also on the north by the land of the Gaṅgas—the Gaṅgavāḍi 96,000 of the Western Gaṅgas of Talakūḍ and that on the south it extended far beyond Koḍumuḍi, as even to cover the northern portion of the later Rājāśarya-Vaḷanāḍu of the Chōḷas which included in it the present Musiri and the Trichinopoly talukas. Coimbatore was in the western division of the Koṅgu-maṇḍalam. The king of the Northern (*vaḍa*) Koṅgu was Adiyaṇ¹—the Adigaṁmaṇ or Adiyamaṇ of later inscriptions whose capital was at Dharmapuri, the ancient Tagaḍūr, in the Salem district. The Kēraḷa country was situated on the west coast beyond the Sahyādri mountains and may have included also the southernmost portions of the present Coimbatore district. In the 8th century, therefore, it looks as if the Koṅgu king allied himself with the Pallavas in the north and the Kēraḷas in the south and tried to oppose the invasion of the Pāṇḍya Neḍuñjaḍaiyaṇ. The Vallabha was defeated by the Pāṇḍya general and a Gaṅga princess was married into the Pāṇḍya family perhaps as a political measure. It is stated that Pūrvarājar put to flight Vallabha. Māraṅgāri also fought on the same occasion. Perhaps the Pūrvarājar were the chiefs of Gaṅgavāḍi subordinate to the Western Gaṅga king who contracted marriage relations with the Pāṇḍyas.

Mr. Venkayya observes again in his Epigraphical Report that the title Arikēsari occurring in text-line 62, was borne by a certain Neḍu-Māraṇ who is mentioned in the commentary of Nakkīrar on *Iraiyānār-Agapporuḷ*. This latter work, as tradition says, was made available for the public by Nilakaṇṭhaṇār of Muṣiri eight generations, i.e., about two hundred years, after the actual date of Nakkīrar. Mr. Venkayya seems to have gone wrong in identifying Neḍu-Māraṇ of literature with Tēr-Māraṇ of the Vēlvikuḍi plates where, however, the characteristic title Arikēsari is not given to him. The other titles, too, are not applied to him and the

¹ See remarks on his Nāmakkal inscription in the Madras Epigraphical Report for 1906, p. 75 f.

battles fought by him as described in the commentary under reference, are not found in the eulogy of Tēr-Māraṇ given in the Vēlvikuḍi plates. On the other hand, Māraṇvarman, the great grandfather of the donor Neḍuñjaḍaiyaṇ, is not only called Arikēsari but is also stated to have fought victorious battles at Pāḷi, Śeṇṇilam and Nelvēli which same are mentioned of him in the commentary on the *Agapporuḷ*.¹ This mention, therefore, of the very same battles both in the plates and in the commentary, sufficiently warrants our identifying Neḍumāraṇ of the commentary with Māraṇvarman, the great-grandfather of Neḍuñjaḍaiyaṇ and not with Tēr-Māraṇ. Nakkirar has sung also of Neḍuñjeliyaṇ in *Puṇanāṇūru*, and it is not impossible that this Neḍunjeliyaṇ is identical with Śeliyaṇ, the father of Arikēsari Māraṇvarman.

Of the six ancestors of Neḍuñjaḍaiyaṇ mentioned in the Tamil portion of the inscription and the three immediate ancestors mentioned in the Sanskrit portion, we learn nothing more than that the first king Kaḍuṅgōṇ who came to rule after the Kalabhra interregnum was a **Pāṇḍy-ādhirāja**,² that the next Māraṇvarman bore the title **Avanichūlāmaṇi** and that the third Śēṇḍaṇ, also called Śeliyaṇ and Vāṇavaṇ, was probably identical, as stated above, with Neḍuñjeliyaṇ of the *Puṇanāṇūru* fame. The fourth king, whose military achievements are given in detail, was Śrī-Māraṇvarman Arikēsari Asamasaman, who in addition to the victorious battles mentioned already, destroyed the Paravas and the people of Kuṇu-nāḍu. The fifth Śaḍaiyaṇ, also called Raṇadhira, was the lord of the Koṅgas, fought battles against the Āyavēḷ at Marudūr, and with the Mahārathas at Maṅgalapura; and the sixth, Tēr-Māraṇ or Rājasinha, defeated Pallavamalla, perhaps at Kuḷumbūr, and fought battles at Neḍuvayal, Kuṇumaḍai, Maṇṇikuṇichchi, Tirumaṅgai, Pūvalūr, Koḍumbālūr and Periyālūr and subjugated the country of Maḷa-Koṅgam as far as Pāṇḍi-kKoḍumiḍi. He contracted relationship with Gaṅgarāja, marrying the daughter of the Gaṅga prince to his son Neḍuñjaḍaiyaṇ, himself having married the daughter of the king of the Maḷavas.³ The fact that he defeated Pallavamalla shows that Tēr-Māraṇ must have been a contemporary of that king and lived about A.D. 710-760.⁴

As regards the territorial terms and village names that occur in the inscription, Pāgaṇūr-kūḷḷam is identical with the division of that name in which the village Śōḷavandāṇ near Madura was included.⁵ Maḷava is identical with Maḷa-nāḍu.⁶ Kuṇu-nāḍu, and the granted village Vēlvikuḍi, and the villages Nagarūr, Korraṇputtūr and Pāyal mentioned in the description of the boundaries of the latter cannot be identified. Koṅkai is the well-known seaport of that name in the Tinnevely District. Of the villages Nelvēli, Śeṇṇilam, Puliyūr (in Kēraḷa), Marudūr, Maṅgalapura, Neḍuvayal, Kuṇumaḍai, Maṇṇikuṇichchi, Tirumaṅgai, Pūvalūr, Śēṅguḍi, Puḍāṅgōḍu, Koḍumbālūr, Kuḷumbūr, Periyālūr, Pāṇḍikkōḍumiḍi, Kāḍal Vañji, Kōḷi, Penṇāgaḍam, Nāṭṭukkuṇumbu, Karavandapuram and Veṇbai,—Nelvēli is Tinnevely;

¹ *Ibid.*, pp. 129 ff.

² Describing the several grades of rulers, the *Kāṁikāgama* states that an *ādhirāja*—*ādhirāja* is the form which the inscription uses throughout the Tamil portion—holds the second rank among kings:—

चतुस्समुद्रपर्वन्तं पृथिवीं यः प्रपालयेत् ।

अक्षरर्षी सम्राट्पातः सम्राट्पत्यं प्रपालयेत् ॥

अधिराजश्चमाख्यातः

(*Hindu Iconography*, Vol. I, Part I, p. 29 n.)

³ Maḷava is identical with the old Maḷa-nāḍu or Rājāsraya-Vaḷanāḍu (see *S. I. I.*, Vol. II, Introduction, p. 24, and *Historical Sketches of Ancient Dekhan*, p. 129).

⁴ Udayachandra, the general of Nandivarman Pallavamalla, also claims in the Udayēndiram grant to have defeated the Pāṇḍy. at Maṇṇaikkūḍi (*S. I. I.*, Vol. II, p. 368, Text, l. 60 f.). Perhaps we may have to identify Maṇṇaikkūḍi with Maṇṇikuṇichchi which is mentioned in the Tamil portion (Text, l. 73 f.) as one of the places where Tēr-Māraṇ was victorious.

⁵ No. 127 of the Madras Epigraphical Collection for 1910.

⁶ See above note 8.

Marudūr is perhaps Tiruppuḍaimarudūr near Ambāsamudram; Maṅgalapuram of the Mahārathas might be Mangalore; Koḍumbāḷūr is in the Pudukkōṭṭai State; Pāṇḍikkoḍumiḍi is the village Koḍumuḍi near Karūr a station on the South-Indian Railway; Kuḍal is Madura; Vañji is Karūr¹; Kōḷi is Woraiyūr near Trichinopoly; Peppāgaḍam is in the Tanjore District; and Karavandapuram is the modern Kalakkāḍ in the Tinnevely District.

TEXT.²

First Plate.

Svasti³ [||*]

- 1 Śriyañ=chiram vaś=śiśir-āmsu-śēkharaś-Śiva[h*] śrit-ārtti-pratibandha-kāraṇam [l*]
tanōtu sauvarṇṇa-kapa-
- 2 rdda-sundarañ=kudarppa-Kandarppa-mada-pramarddanaḥ 2 [1*] Viśvambhara-
bhara-śrānta-śēsha-viśrāma-kāraṇam [1*] ā-
- 3 kalp-āntam=bhuvi sthōyād=anvayaḥ-Pāṇḍya-bhābhritām 2 [2*] Astambhayat-
kshiti-dharam=pravijjimbhamāṇam=ambha-
- 4 s=samastam-apibaj=jaladhōś=cha yas=sah [l*] Kumbh-ōdbhavō bhavati yasya
muniḥ-purōdhūs=sa śri-nidhi-
- 5 r=jjayati Pāṇḍya-narēndra-vamśaḥ 2 [3*] Asthād=apratima-prabhāva-mabitaḥ=
Pāṇḍy-ābhidhānō nidhē-
- 6 r=vvārādhvārī⁴ mahāpatis=tribhuvanō linē=pi kalpa-kshayāt [l*] Dhātṛā śriṣṭa-
vatā punas=sa
- 7 jagatām rakshārttham=abhyarthitas=tējasvi tanayatvam=ōtya śaśinō nāmnā Budh-
ākhyō=bhavat 2 [4*]

Second Plate ; first side.

- 8 Putras=tasya Purūravā bhuja-bala-pradhvasta-daityaḥ=prabhus=tad-vamśō Śikharin-
dra-mastuka-śi-
- 9 lā-vinyasta-matsya-dvayō [l*] Śakr-ōrddh-āsana-hāra-bhāji śaraṇō viśvasya viś-
vambhara-gēha-
- 10 svāmini śāśvatō yudhi jīt-āśēsh-āmar-āri-prabhau 2 [5*] Dātibhāta-divākasi⁵
kshiti dhara-kshu-
- 11 bdh-ābhisaniksbōbhita-kshīr-ōdanvati Kumbha-sambhava-kara-prāpt-ābhishēka-kriyō
[l*] isht-ārtth-ārppaṇa-
- 12 tarppit-ārtthi-janat-āpārṇṇa-kshamā-maṇḍalō janm=āvāpa jaga⁶-tray-ārchchita-guṇa[h*]
śri-Māravarmma nri-

¹ Pandit Raghava Aiyangar of Ramnad has proved from copious references to literature that the earliest Vañji is Karūr. But an inscription at Dhārāpuram mentions the town Koṅgu-Vañji, suggesting thus, another Vañji which was perhaps the earlier and the capital of Chēra.

² From two excellent impressions supplied by Dr. Fleet to Mr. Venkayya in 1893 and another supplied by Dr. L. D. Barnett to me in 1915.

³ These two syllables are written on the left margin of the plate.

⁴ Read *vvārān=arāri.

⁵ Read -divakasi.

⁶ Read jagat⁶.

Velvikudi Grant of Nedunjadaiyan : the 3rd year.

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- 13 Paḥ 2 [6*] Dharanī-valayaṁ samastam=etan-nija-dōrddanḍa-mah-ōrag²ṇa
bibhṛit¹ [1*] aharat=sa bhu-
14 jaṁgam-ādhībhartuṣ=chira-kāl-ōdvahana-klaman-dharāyāḥ 2 [7*] Adhiruhya
tulām=a-mitra-varggam=ṇudhi ji-

Second Plate ; second side.

- 15 tv=Āmpita-garbbhatō janitvā [1*] sudhiyām=adhipas=suvarṇṇa-rāśim vidhivat=sa
pratipādayām-babhūva [2] [8*] Tasyā-
16 ²nmajas=taruṇa-bhāskara-tulya-tōjā rājā babhūva Raṇadhīra iti pratitah [1*]
yō ilay=aiva bhuvana-
17 sya babhāra bhāraṁ hāraṁ yath=āśya guravas=suranāyakasya 2 [9*] Putras=
tasya Purandara-pratikṛtir=bhū-
18 sundari-vallabhō namr-āsōsha-narēndra-vēshṭana-maṇi-vrāt-āṇḍit-āṁghri-dvayaḥ [1*]
āsīt=satya-sakhaḥ=pa-
19 rākrama-dhanaḥ=³patmāsanaśyāḥ=patir=vvidy-āchāra-vibhūṣhaṇa[h*] śruta-[dha]ra[h*]
śri-Māravarmma=ābhidhaḥ 2 [10*] Sa Rāja-
20 siṁhas=sarasiruh-ākshō bhayam bhuvi prāṇa-bhṛitām=apāsya [1*] raraksha
dakshaḥ kshapit-āri-paksha-
21 ⁴h=kshamātalaiṁ kshamā=patir=akshat-ājñāḥ 2 [11*] Narō nu Rakshō nu Harō-
nu Pūrushaḥ=parō nu Śakrō nu

Third Plate ; first side.

- 22 sarōsham=āgutaḥ [1*] iti [sma] matvā yudhi yam=bhay-ā[rddi]taḥ=[pa]lāyatō
[Pallava]malla-bhūpa-
23 tiḥ 2 [12*] Kanaka-garbbha-kṛita-prasavaḥ=punas=samadhiruhya tulām=atulām=
api [1*] akira[t=ā]-
24 rttham=apākṛita-kalmashō dvija-daridra-sur-āyatanō=shu yaḥ 2 [13*] Māhā⁵-
kulinām=Maḷav-ōndra-[ka]-
25 nyām sa Māravarmma sadraśim⁶=uvāha [1*] ajāyat=āśyām Hara-sūnu-kalpō
jagad-dhitārthhañ=Jaṭi-
26 l-ābhidhāuḥ 2 [14*] Aśishat=sa dharām=ahina-sārah=kshitipah=kshālita⁷-
kalmash-ānushamgam [1*] nata-rā-
27 jaka-maṇi-ranna⁸-raśmi-prakar-ābhyarchchita-pāda-patma⁹ piṭhaḥ 2 [15*] Khalayō
sa gupān=adāt=Kṛitasya
28 sva-bhujābhyām sura-pādapa-svabhāvam [1*] abhayam śaraṇāgata-prajābhyas=sa
divam samṇati śa-

¹ Read bibhṛat.

² Read pakshaḥ kshamā⁵.
Read kshitipah kshā⁵.

³ Read °tmaja⁵.

⁴ Read Māhā.

⁵ Read ratna.

⁶ Read padmā⁵.

⁷ Read sadraśim⁵.

⁸ Read padma.

Third Plate ; second side.

- 29 tru-pārthivēbhyāḥ २. [16*] Rājatām sa mahāpāla-kirīṭ-ārppita-śaṣaṇāḥ [1*]
 Rājasimha-suto rā-
 30 jā chiram=urvyām=Parāntakah ||||— [17*] I-praśasti 'Sarvvakratu-yāji āgiya
 Varōdaya-Bhaṭṭapār=che-
 31 yyappaṭṭadu ||||— Kol-yāpai-palay-ōṭṭi-kkūḍā-maṇṇar-kulān-tavi-
 32 rttā Palyāga-Mudukuḍumi=pPeruvaludi eṇṇum Paṇḍyādhirājanā-
 33 pāga-mā-malar-chchōlai-naḷir-śiṇaimiśai-vaṇḍ-alambum Pāgaṇūr-
 34 kkūṛram¹=eṇṇum paḷaṇa-kkiḍakkai-nir-nāṭṭu=chchoṛkappāḷar-śo-
 35 lappaṭṭa śrutimārggam-piḷaiyāda Kōṛkai-kilā-Nāṛkōṛraṇ koṇ-
 36 ḍa vēḷvi muṛruvikka kēḷvi-andanāḷar muṇbu kēṭka eṇṇ=ēdut-

Fourth Plate ; first side.

- 37 t=uraittu vēḷviśālai-muṇbu niṇru Vēḷvikūḍi eṇṇ=a-ppadiyai=chchī-
 38 rōḍu tiru-vaḷara=chcheydār [||*] Vēndaṇ=appoḷudēy nīrōḍ-aṭṭi-kkoḍuttamai-
 39 yā=ṇiḍu-bhukti ²tuttapiṇṇ[||*]=Aḷav-ariya ādhirājarai agala nīkki agal-iḍattai=
 40 kKaḷabhraṇ=eṇṇuṇ=Kali-araiśaṇ kaikkōḍ=adanai iṛakkiyapiṇ[||*] Paḍu-kaḍaṇ-muḷai
 41 tta parudi-pōla Paṇḍyādhirājan vēḷirpaṭṭu viḍu-kadir-avir-ōḷi vilaga viṛri-
 42 rundu vēlai-sūḷnda-viyal-iḍattu=kkōvuṇ=kuṛumbum pāvudaṇ murukki=chche-
 43 nkol=ōchchi vēṇ-kuḍai-niḷaṅ-ṅaṅ-ōḷi-niṇainaḍa Taraṇi-maṅgaiyai=ppiṇar-
 44 pāl=urimai tiraviḍi=ṇikki=ttappāl=urimai naṇṇaṇam=amaitta māṇam-pō-
 45 rttā-tāṇai-vēndaṇṇ=ōḍuṅgā-maṇṇar-ōḷi-nagar=aḷitta Kaḍuṅgōṇ=eṇṇuṇ=kāḍi-
 46 r-vēṇ-Beṇṇaṇ [||*] Maṇṇ=avaṅku maṇaṇ-āgi mahitalam podu-nīkki Malar-maṅgai[y*]-o-

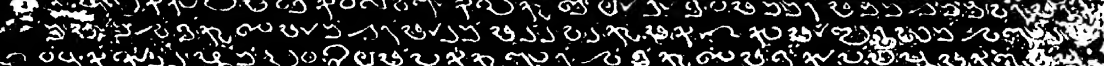
Fourth Plate ; second side.

- 47 ḍu maṇaṇ=ayaṇḍa aṛṇam-il-aḍar-vēṅ-ṅāṇai-Ādhirājan Avaṇichūḷāmaṇi etti-
 48 rattum=igal-aḷikku=matta-yāṇai Māravarman [||*] Maṇṇ=avaṅku maruv-iṇiya
 oru-maṇaṇ-ā-
 49 gi Maṇ-inagaḷai maṇu=kkāḍindu vikramattin vēḷirpaṭṭu vilāṅgal-vēḷ-po-
 50 ri-vēndaṇ-vēndaṇ śilai-ttāḍa-kkai=kkolai-kkaḷiṇṇu=chChēṭṭyaṇ Vāṇavaṇ
 51 śēṅkōṛ-Chēndaṇ [||*] Maṇṇ=avaṅku=ppaḷipp-iṅgi vēḷi-ttōṇri Udayagiri-madhyama-
 52 t=urru-śuḍar-pōla=ttēṇ-eṇṇu diśai naḍuṅga maṇṇ=avaṇ vēḷirpaṭṭu=chchū-
 53 ḷi-yāṇai śelav=undi=pPaḷivāy=amar-kaḍandu Vilvēli-kkaḍar-ṅāṇaiyai
 54 Vēlvēli-ōchcheru vēṇṇum viṇavi-vand-aḍaiyāda Paravaṇai=ppāḷi-paḍut-
 55 tum=aṛukāl-iṇam puḍai tīḷaikkūṇ=Kurunaṭṭavar-kulān=keḍuttu-
 56 ā=kai-nnaḷatta-kāḷiṇ-undi=chChēnnilattu=chcheru vēṇṇum pār-aḷavun=

¹ The *paḷḷi* is marked over *ms.*² Read *tuytta*°.

Velvikudi Grant of Nedunjadaian : the 3rd year.

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Fifth Plate; first side.

- 57 [ta]ni-chchenkōr-Kēraḷapai=ppala-mu[raiyum=urimai]-chchurram[ōḍ=avar-yā]pai-
 58 [y*]um purisai-mmadiṟ-Puli[y*]ūn=ppaga-pāligai ira[v]āmai iṅa[l-ā]-
 59 li[y*]uḷ venṟu koḍum vēl-āli[y*]um viyaṅ-paṅbumbum=ēlāmai ṣeṅ-
 60 r=erind-aḷittum Hiranyagarbhamun-Tulābhāramun=darapimisai=ppala ṣey[du]
 61 antaṅarkkum aṣaktarkkum vand=apaiga enṟ=itt=aḷitta makarikai-aṇi-maṇi-
 62 neḍu-muḍi-Arikēsaṟi Aṣamasaman śrī-Māravarmman. [||*] Maṟṟ=avaṅku magan-
 āgi=kkorṟa-vē-
 63 l valaṅ-ēndi=pporud=ūruṅ-kadar-rāṇaiyai Marudūruṅ māṇb=aḷitt-Āyavē-
 64 lai agappaḍa ey=enṇāmai erind=aḷittu=chChengōḍi[y*]um Pudāṇ[kō]ṭ-
 65 tuṅ=cheru venṟ=avar-śiṇaṅ=tavirttu=kkoṅg-alarun-uṟum-poḷilvāy=kku-
 66 [y*]i[lo]ḍu ma[y*]il=agavu-Maṅgalapuram=enṇum mahā-nagaruṅ Mahāratharai e-

Fifth Plate; second side.

- 67 ṇind=aḷitt-aṅai-kaḍal-valāgam podu-moli agaṅṟi-chchilai[y*]um puli[y*]um
 68 kayaluṅ=chēṇṟu nilaiy-amai-neḍu-varai-iḍava[y*]ir-kidāy maṇṇ=iṇid-āṇḍa
 69 taṇṇ-aḷi-chchenkōr-Rēṇṇa=Vāṇavaṅ Śembiyaṅ Śōḷaṅ maṇṇar-maṇṇa[n*] madu-
 70 ra-Karunāḍagaṅ koṇ-ṇaviṇṟa neḍuṅ-chuḍar-vēṟ-Koṅgar-kōmāṇ kō=chChadaiyaṅ
 [||*]
 71 Maṟṟ=avaṅku putraṇāy Maṇ-magaḷadu poruṭṭāga matta-yāṇai ṣelav=undi māṇa-
 72 vēl valaṅ-ēndi=kkaḍu-viṣaiyāl=edirndavarai Neḍuvayalvāy nigar=aḷi-
 73 ttu=kkaṇuv-aḍainda maṇattavarai=kKurumaḍaivāy=kkūrpp=aḷittu Ma-
 74 ṇṇikuṟichchi[y*]un=Tirumaṅgai[y*]u=muṇṇiṇṟavar muraṅ=aḷittu mēvalō-
 75 r-kadar-rāṇai[y*]ōḍ-ōḅḅ=edirōy vandavarai-pPūvalūr=ppuṇaṅ-gaṇḍuṅ=
 76 koḍum-purisai-nneḍuṅ-kidaṅgiṟ-Koḍumbālūr=kkūḍār-kaḍum-pari-

Sixth Plate; first side.

- 77 [y*]uṅ=karuṅ-kaḷiṇuṅ-kadir-vēliṟ=kaikkonḍuṅ=Chēva . . . [kā]ḍāda Pallavaṇai-k
 78 Kuḷumbūruṭ=ṭōṣ-āliya enṇ-iranda māḷ-kaḷiṇum=ivu[li]ga]um pala kavarn-
 79 dum tariyularāy=ttarittavarai=pPeriyalūr=ppīḍ-aḷittum pūviri[y*]u-
 80 m-poḷiṟ-chēlai-kKāviriyai=kkaḍanditt-aḷag-umainda vār-ēilai[y*]iṅ Maḷa-Ko-
 81 ṅgam=aḍippaḍuttu miṇḍ-oliya-maṇi-imaikkum=ēḷil-amainda neḍum-pu-
 82 risai=pPāṇḍikkōḍumiḍi ṣeṇṟ=eydi=pPaṣṇpatiyadu panma-pādam paṇind-ē-
 83 tti=kkanaka-rāṣi[y*]uṅ-kadir-maṇi[y*]um mana-maḷaḷa¹=kkuḍuttittuṅ-kōṅga-
 84 r-van-naṟuṅ-kāṇṇi-kGaṅga¹-rēḷaṇḍa sambandhaṅ=cheydum enṇiṇṟandaṇa Ga-
 85 sahasramum. Hiranyagarbhamun-Tulābhāramum maṇṇiṇṟamisai=ppala ṣeydu ma-
 86 ṇai-nāviṇḍōr kuṟai-tiṟttuṅ-Kūḍal² Vāṇḷi Kōḷi enṇu-māḍa-mā-madi-

Sixth Plate; second side.

- 87 l pudukki[y*]um=aṅai-kaḍal-valāgaṅ=kuṟaiyāḍ=āṇḍa maṇṇar-maṇṇa[n*]-Rēṇṇivar-
 maṇuga-

¹ Read *magiḷa*.

² Read *kKaṅga*.

- 88 n māṇa-veṇ-kuḍaimāṇ=Ṛēr-Māṇa [||*] Maṇṇ-avaṇku maṇa-āgi Māl-uruviṇ veḷiṇpa-
 89 tṭu=kkorṇa-māṇṇ-udaṇ=iyamba=kkulir-veṇ-kuḍai maṇ kāppa Pū-magaḷum Pu-
 90 la-magaḷum Nā-magaḷum-nalaṇ=ōtta=kKali-araiṇa vali tālara=ppoliviṇoḍu vi-
 91 rirundu karuṇ-kaḍal-uḍutta peruṇṇaṇ-ñālattu nāḥ-perum-paḍai[y*]um pā-
 92 xpaḍa=pparappi=kkarudādu vand=edir-malainda Kāḍavanai=kkāḍ-aḍaiya=ppū-vi-
 93 ri[y*]um-puṇaṇ-kalāni-kKāviri[y*]iṇ=ṇeṇkaraimēḥ=ṇaṇṇ-āgam-malar-chchōlai-
 94 pPēnṇāgaḍatt-amar veṇṇun=ti-vāy-a[y*]il=ēndi=ttiḷaitt=edirēy van-
 95 d=iḷutta Āyavēlai[y*]uṇ=Kurumbarai[y*]um=aḍal-amaru=aḷitt=ōṭṭi=kkāṭṭu-
 96 [k]kuṇumbu seṇṇ-aḍaiya Nāṭṭukkuṇumbiṇ=cheru v[e]ṇṇum=arai-kaḍal-valā-

Seventh Plate ; first side.

- 97 gam-oru-moḷi=kkolliya śilai-mali-taḍa-kkai Teṇṇa=Vāṇayan avaṇō-
 98 y Śrīvaran Śrī-manōharan Śiṇachchōḷaṇ Puṇappūliyaṇ vitakanmashan¹
 99 vinayaviśrutan² vikramapārakan viṇapurōkan marudbalan mānyaśāsanan Manūpaman
 100 marḍḍitavīran giristhiran gitikinnaran kṛipālayan kṛitāpatānan Kalippagai
 kaṇḍa-
 101 kanishṭuran³ kāryaḍatshiṇa⁴ kārmukha⁵-Pārtthan Parāntakan Paṇḍitavatsalan
 paripūruṇan pā-
 102 pabhīru kurai-uṇu-kaḍaḥ-paḍai-ttāṇai-ṇuṇagṛiḥyan gūḍhaniṇiṇṇayan⁶ nirai-uṇu-mala-
 103 r-maṇi-niṇ-muḍi-Nēriya[r*]kōṇ=Nēḍuṇṇaḍaiya[u*] [||*] Maṇṇ-avaṇṇaṇ rājya-
 vatsalam⁷ mūṇṇā-

Seventh Plate ; second side.

- 104 vadu śelānirpa āṇḡ-oru-nāṇ=māḍa-mā-maḍir-Kūḍaḥ-pādu niṇṇavar ā-
 105 krōdhikka=kkorṇavanōy maṇṇ-avarai=tterreṇa nangu kūvi eṇṇēy nuṇ-kurāi
 106 eṇṇu muṇṇāṇa=ppaṇitt-arula mō-ṇā=ṇiṇ-kuravarāṇ=pāṇ-murāi[y*]iṇ va-
 107 luvāmai māṇa-tōy-malar-chchōlai=pPāṇaṇūr-kkūṇṇattu=ppaḍuvadu
 108 āḷva-tāṇai-aḍal-vēndēy Vēḷvikūḍi eṇṇum piyar-uḍaiyadu o-
 109 lḡāḍa vēṇ-rāṇai[y*]oḍ=ōḍa-vēli uḍaṇ kātta Palyāga-Mudukuḍumi-
 110 pPeruvaḷudi eṇṇum Paramēśvāraṇṇā⁸ Vēḷvikūḍi eṇṇappaṭṭadu
 111 kēḷviyir=raṇappaṭṭaḍaṇai=ttulakkam-iḷḷā kaḍaḥ-rāṇaiy-āya Kalabhra-
 112 rāl=iṇakkappaṭṭadu eṇṇu niṇṇavan viṇṇāpyāṇ=cheyya naṇṇu naṇṇ-eṇṇu
 113 muṇuvalittu nāṭṭā=ṇiṇ paḷamaiyādal kātṭi nī [koḷgav=eṇ]ṇa nēṭṭ[ā]ḥ=raṇ

Eighth Plate ; first side.

- 114 paḷamaiyādal kātṭiṇāṇ=aṇḡ=appaḷudēy kātṭa mō-ṇāḷ=e[n]-kura-
 115 varāṇ=pāṇmurāi[y*]ir=raṇappaṭṭadai emmālun=tarappaṭṭad=eṇṇu śe-
 116 mmāṇḍ=avaṇ=eḍutt-aruli viḥ-kai-ttaḍa-kkai-viṇal-vēndaṇ Korṇai-kilā-
 117 n Kāmakkāṇi Nārchiṇḡaṇku=ttēr-ōḍuṇ-kaḍaḥ-rāṇaiyāṇ=ṇirōḍ-aṭṭik[ko]-
 118 ḍuttamai[y*]iṇ maṇṇ-idaṇku=pperu-nāṇḡ-ellai terreṇa viritt=uraip-
 119 piṇ=pugar-aṇu-poliṇ=maruṇḡ-uḍutta Nagaṇūr-ellaikkum mēkkum maṇṇ-idaṇku-

¹ Read *kalmashan.

² Read *nishṭuran.

³ Read *śūḍhaśirṇayan.

⁴ The original has the impossible combination *viśrutan.

⁵ Read *kāryaḍakshiṇan.

⁶ Read *karmuka*.

⁷ Read *vatsalam.

⁸ Read *nāl.

- 120 tt[e]ṇ ellai Kuḷandaivañ-Kā|vandai-śe[y*]kkuñ-Kaḷandai-kku|attil-ālnkk[u]
 121 vaḍakkum maṟṟ=idaṟku mōl-ellai aṟṟam-illā=kKoṟṟapputtū(r)r-Oḍumaiy-i-
 122 ruppai-chchey-idai mōṟṟalai=pperuppiṟku=kkiḷakkum maṟṟ=idaṟku vaḍupā-

Eighth Plate ; second side.

- 123 l-el[lai kāya]luṭ=kamalam malarum Payaluḷ vaḍapālai=pperuppiṟku-t-
 124 teṟkum ivv=iyait[ta*] peru-nāṅg-ellaiyir-paṭṭa pūmi kārāṇmai miyāṭchi
 125 ul-aḍaṅga mēl-eñ-guravarāṟ=kudukkappaṭṭa paṟiśōy emmāluñ=[ko]ḍuk-
 126 kappattadu [|*] Maṟṟ=idaṟk=āṇatti kurram-iṟṟi-kkūruñkālai=kkoṅgar-van-na-
 127 ruñ-kapṇi-kGaṅgarājanadu kanyā-ratnañ Koṅgar-kōṟku-kkuṇandu koḍuppa āṟp-
 128 p-aṟā-aḍar-rāṇai-pPūrvvarājar puṅaṟ-eḷundu vil-viravuñ=kaḍaṟ-rāṇai-[Va]llabhaṇai
 129 Venbaivāy āl-aṇṇaruḷ=alind-ōḍa vāḷ-amaruḷ-uḍaṇ=vavviya ēṇa-ppori²
 130 igal-amaruḷ=iḍi-urum-eṇa valaṇ-ōnda [malai]tta-tāṇai-Maḍavikalāṇ³ maṇṇar-kō-
 131 ṇ-arulir=peṟruñ=kol-valaikkuṇ-vōṟ-rāṇai-ppal-valai-kkōṇ kuṇara-

Ninth Plate ; first side.

- 132 ppaṭṭu=ppōr-vandavar-madan=tavirkkuñ-Karavandapurattavar-ku[la-l]tōṇṟal māṇv-ēn-
 133 duñ = kaḍar - rāṇai - Mūvēndamaṅgalappērarai[ya]ṇ = āgiya Vaidyaka-śikhāmaṇi⁴
 Māraṅgā-
 134 ri [|*] I-ppiramadēyam-uḍaiya Koṟkai-kilāṇ Kāmakkāṇi Śuvarañ-Jiṅgaṇ i-
 135 ḍaṇuḷ mūṇṟil-onṟun-taṇakku vaitt-iraṇḍu-kūṟum aimpadiṇvar Brāhma-
 136 ṇarkku nīrōḍ=aṭṭi-kkoḍuttāṇ [|*] Idaṇuḷ Mūrtti Eyiṇaṇ śavai[y*]ōḍ-o
 137 ttadu nāṅg-arai-ppaḍāgāram-uḍaiyaṇa [|*] Idaṇuṭ=ṭaṇakku vaitta oru-kūṟilu-
 138 n=tambimārkkku nāṅgun=tañ-chirappanār-makkaḷukku āṟum sa-
 139 bhai[y*]ōḍ=otta paḍāgārañ=koḍuttāṇ [|*] I-ppraśasti pāḍiṇa Sēṇapa-
 140 ti Ēṇādi ā[y*]iṇa Śattañ-Chāttarṟu mūṇṟu kūṟārum-āy-t-
 141 taṅgaḷōḍ=otta nāṅgu paḍāgārañ=koḍuttār ||⁵

Ninth Plate ; second side.

- 142 Āsit⁶=Maṅgalarājō Maḍhuratarah śāstravit=kavir=vvāgm[|*] ājñaptir=asya
 Vaidyaḥ Karavandapur-ā-
 143 dhivāstavyaḥ 2 [18*] ⁶Ratshān=naraḥ parakṛitau vidadhita vidvān=pādā hi
 Dharmma yaśasaḥ para-
 144 masya labdhā[h*] [|*] Dhātr=aiva ⁷srasṭam=akhilam ⁸bhuvanan=tath=api
 ratshantri⁹ pūṇyatatayaḥ ¹⁰prathivIn=narēndrā[h] || [19*] ||⁴
 145 Na hi bhūmi-pradānād=vai dānam=anyad=viśishyatō [|*] na ch=āpi bhūmi-haraṇāt
 pāpa-
 146 m=anyad=vidhiyatō 2 [20*] Dātā daś=ānugrahṇāti¹¹ yō harēd=daśa hanti
 cha [|*] atit-ānāgatā-

¹ Read *kKaṅga*.

² These two syllables are written over an erasure.

⁴ For the ornamental form of the punctuation, see Plate.

⁶ On the use of *tsa* for *ksha*, see above, p. 1.

⁸ Read *bhuvananam*.

¹⁰ Read *prī*.

⁵ Read *vikalan*.

⁶ Read *Asin*.

⁷ Read *srishṭam*.

⁸ Read *nti*.

¹¹ Read *grī*.

- 147 nī=ha kulāni. kula-nandana. 2. [21*] Sva-dattām para-dattām vā. yā. hanṭa
vasundharā
- 148 m [i*] na tasya [na]rakāt¹=ghorād=vidyāt. nishkṛtiḥ kvaचित. 2. [22*]
Bahubhir=vvasudhā

Tenth Plate.

- 149 dattā bhujyāt h[i] ²tarādhipaiḥ [i*] yasya yasya yadā bhūm[i]s=tasya.
tasya ta-
- 150 dā phalam [23*] ||³ chatvāraḥ imē Vaishṇavē Dharmē ślokaḥ ||³
- 151 Maṛṛ-i[da*]nai=kkāttār malar-aḍi eṇ muḍi mōla eṇṇu korraṇaṇēy paṇi-
- 152 tt-aruli-tterreṇa=ttāmra-śāsanañ=cheyvittāṇ ||||— Iyde=eludi-
- 153 ṇa Śuttakēsari=pPerumpāṇaikārapukku perumakkaḷ arulāḥ-perṇa-
- 154 du oru illa-vaḷāvam iraṇḍu mā=chchey[y*]um oru puṇchey[y*]u-
- 155 m perṇāṇ ivai Yuddhakēsari=pPerumbāṇaikā[ra*]p=eluttu [||]

TRANSLATION.

(Verse 1): Hail! May Śiva, whose head-ornament is the cool-rayed (moon); who is the (primeval) cause for the cessation of the sufferings of the devoted, who is beautiful with matted hair of golden hue, and who crushes the mischievous pride of Kandarpa (Cupid); grant you perpetual happiness.

(V. 2). May the line of **Pāṇḍya** kings, the cause of rest to (the serpent) Śāsha, who is fatigued by bearing the burden of the Earth (on his heads), prosper on this earth to the end of the *kalpa*.

(V. 3). Victorious is the race of Pāṇḍya kings, the mine of prosperity, whose family priest is the sage (**Agastya**) born of the pitcher, who stopped the rapidly growing mountain from (further) growth, and drank all the water of the ocean.

(V. 4). There was (ruling) at the entrance into the sea a king famed for his matchless prowess, named **Pāṇḍya**, who, even after the three worlds had disappeared at the end of the *kalpa*, was requested again to rule the worlds by the Creator who created (these) anew, and was born as the splendid son of the moon and named **Budha**.

(Vv. 5 and 6). His son was **Purūravas**, who crushed the kings of giants by the strength of (his) arm; in his family which had engraved the pair of fish (its crest) on the topmost rock of the lord of mountains (i.e., **Mēru**); whose (kings) shared with Śakra (i.e., **Indra**) half of his throne and his necklace; which was the asylum of the universe; which was the husband of the earth; which was everlasting; which in battles defeated completely the powerful enemies of the gods; whose messengers were the gods; who stirred and churned the milk-ocean by the mountain (**Mandara**); the crowning ceremony (of whose kings) was performed by the hand of the pitcher-born (sage **Agastya**); and which had filled the circle of the earth with supplicants whose hearts were gladdened by the granting of their desires, was born the glorious king **Māravarman**, whose virtues were praised by the three worlds.

(V 7). Bearing on his big serpent-like shoulder the whole circle of this earth, he removed the fatigue of the lord of serpents (i.e., **Śēsha**) (which had been caused) by the carrying of the earth for a long time.

(V. 8). He, the patron of the learned, conquered enemy crowds in battles and ascended the scales; came out of the nectar womb (of the cow); and according to rule, gave away heaps of gold¹.

(V. 9). His son was the king called **Ranadhira**, whose prowess was equal to that of the youthful sun and who bore the burden of the earth as sportively as his ancestors wore the necklace of (Indra), the chief of the gods.

(V. 10). His son was the glorious king named **Maravarman**, a counterpart of Purandara (Indra); the dear lord of the beautiful lady, earth, whose pair of feet was surrounded by the collection of gems in the crowns of all kings bowing in obeisance; whose friend was truth; whose wealth was prowess; the lord of the goddess of prosperity (Padmāsānā); who was an ornament of learning and good conduct and a depository of sacred knowledge.

(V. 11). That lotus-eyed **Rājasimha**, the king of the whole earth, driving away the fear of created beings on earth, ably protected the earth unopposed (after) destroying the allied enemies.

(V. 12). "Is he Nara (i.e., Arjuna); is he a giant; is he Ilara (i.e., Śiva); is he the Primeval Man (Viṣṇu); is he Śakra (Indra) come with anger?" thus thinking of him, in the battle-field, the frightened king **Pallavamalla** runs away (from him).

(V. 13). Who being made to be born of the womb of the golden (cow) and having again ascended the matchless scales, was freed of (his) sins and showered freely (his) wealth on Brahmins, beggars and temples.

(V. 14). This (king) **Māravarman** suitably married the daughter of the **Maḷava** king of high birth; and from her was born, for the good of the world, (the king) named **Jaṭila** almost equal to **Skanda** the son of Śiva.

(V. 15). That king of great strength ruled the earth clearing it of (all) associations of corruption; the footstool of his lotus feet was worshipped by the great lustre proceeding from the gems on the crowns of prostrating kings.

(V. 16). I imagine that he lent (his) virtues to the **Kṛita** (golden age); (he lent) to the celestial tree its nature, from his hands; to the subjects who sought refuge (in him), his promise of protection; and to the enemy kings on the battle-field, heaven.²

(V. 17). May he be long glorious on earth, king **Parāntaka**, the son of **Rājasimha**, whose commands are borne on the crowns by rulers of earth.

(L. 30). This *prāśasti* was composed by **Varōdayabhaṭṭa** who was a performer of all sacrifices (*Sarvakrutuyājin*).

(L. 31). **Narkorran**, the headman of **Korkai**, who never transgressed the path of the *Śruti*s as interpreted by the highly learned (men) of the division called **Pāganūr-kūṭṭam**,—a well-watered land of extensive paddy fields, where the beetles buzzed on cool buds in groves blooming with the Nāga and the mango (trees),—being desirous of completing a (Vedic) sacrifice begun (by him), through (the favour of) the **ādhirāja** of the Pāṇḍyas called **Palyāgamudukuḍumi-Peruveḷudi**, who dispersed the crowd of the enemy kings by leading numbers of ferocious elephants (against them), the *kṣatri*-Brahmanas, in presence (of the king) saying

¹ These are the gifts which kings are expected to make on their coronation or on obtaining conspicuous victory in battles. They were also expiatory in character. See below, v. 18.

² The nature of the celestial tree is to give whatever is wanted and the hands of the king were giving away gifts on a very liberal scale. To give enemy kings heaven means to kill them on the battle-field and by so doing to send them to heaven.



¹ The word -*iravāmai* is explained by Pandit Raghava Aiyangar of Ramnad to mean 'in a moment.'

(L. 62). Then (came) his son King Śaḍaiyaṇ, the lord of Koṅgas, whose javelins were long, brilliant and destructive, who was (also called) Teṇṇaṇ Vāṇavaṇ, Śembiyaṇ, Śōḷaṇ,¹ king of kings, the beautiful Karuṇāṭakaṇ, who with the victorious javelin in his right (hand), fought and destroyed the glory of the ocean-like army that came forth at Marudūr and capturing Āyavēḷ, attacked and destroyed him completely², gained victories in battles at Śeṇḡoḍi and Puḍaṇkōḍu³ and brought his (*i.e.*, Āyavēḷ's) anger to an end ; at the great city called Maṅḡala-pura, where the peacock danced with the cuckoo near tanks perfumed with opening flowers, attacked and destroyed the Mahārathas ; removed the word "common property"⁴ (with reference to) the country (bordering) on the roaring sea ; administered justice tempered with mercy and ruled the earth with love, having reached the slopes of the high and permanent mountain (Mōra) and cut on the broad face of it the bow, the tiger and the fish.

(L. 71). Then (came) his son Tēr-Māraṇ (*i.e.*, Māraṇ of the horse-chariot) the king of kings, a member of the Pāṇḍya (Teṇṇavar) family, the proud possessor of the white parasol, who in order to acquire the goddess of the earth, carried in his right hand the awe-inspiring javelin and driving (forth) *mast* elephants (into the battlefield), defeated straightway at Neḍuvayaḷ his opponents, who had rushed in great haste (*against him*) ; suppressed the rage of those whose minds were filled with anger (*against him*), at Kuṇumaḍai ; destroyed the power of (the enemies) who confronted him at Maṇṇikuṇichchi and Tirumaṅgai ; saw the backs of the in-subordinate (*chiefs*) who advanced towards him with an ocean-like army, at Pūvalūr ; captured the fiery steeds, the black elephants and the sharp missiles of enemies at Koḍumbālūr which had high ramparts and deep trenches (round it) ; deprived the splendour of the Pallava (*king*) at Kuḷumbūr and took numberless huge elephants and horses ; humbled at Periyālūr the greatness of those who had come to cut him asunder not bearing (to see his greatness) ; crossed the Kāviri (*with its*) groves (of trees) and tanks of budding flowers ; subjugated Maḷa-Koṅgam with (the help of his) beautiful long bow ; proceeded and reached Pāṇḍikkoḍumiḍi of high fortifications, beautiful with the lustre emanating from brilliant gems ; prostrated at and worshipped the lotus feet of Paśupati (Śiva) ; gave away with great pleasure heaps of gold and lustrous gems ; contracted relationship with Gaṅgarāja, who wore garlands of sweet-scented flowers ; and performing *gṇ* earth countless (gifts of) *Ġṣuhasra*, *hiranyagarbha* and *tulābhāra*, relieved the distress of (the Brāhmanas) who studied the Vēdas ; renewed the palaces and the high ramparts (of the capital towns)⁵ named Kūḍal (*i.e.*, Madura), Vāṇji (Karūr) and Kōḷi (Uṇaiyūr) and ruled the whole earth (bounded) by the roaring ocean.

(L. 88). Then (came) his son Neḍuṇḡadaiyaṇ, the king of the Nēriyar (*i.e.*, the Chōḷas), who (wore) a high crown covered with flowers and gems, who kept (*his*) council secret, who was respected for his virtues (and possessed) an army of battalions (*as extensive*) as the rising noisy ocean, who was afraid of (committing) sins, who had no wants, who was the lover of the learned (Paṇḍitavatsala), death to his enemies (Parāntaka), a Pārtha (*i.e.*, Arjuna) in (wielding) the bow, clever in his designs, cruel to the wicked, the enemy of the Kali (*age*) (Kalippagai), the performer of noble deeds, the abode of mercy, a Kinnara in music, firm as mountain, the smasher of heroes, he who equalled Manu, whose commands were obeyed, who was strong as

¹ The king having conquered the Chēra and the Chōḷa, apparently appropriated their crests also, *viz.*, the bow and the tiger and their titles Vāṇavaṇ, Śembiyaṇ and Śōḷaṇ.

² The word *ēyēṇṇāmai* is translated tentatively.

³ Śeṇ-gōḍi and puḍaṇ-kōḍu may have to be interpreted in the sense of 'brilliant flag' and 'brand new drum' (?) , which perhaps were the boast of the Āyavēḷ.

⁴ *I.e.* made it all his own.

⁵ We must understand after *eṇṇum*, some word like *nagaragaḷin*. But it is also possible that *māḍa-māmaduḷ* is a recognised term (*rūḍha-nāma*) for a capital town with palaces and fortifications; *cf.* the term as it occurs in I, 104.

wind, the foremost of the valiant, master of heroism, renowned for good behaviour, free from (all) blemish, **Punappūliyan**, **Śinacchōḷan**, **Śrivarā**, the paramour of Śrī (i.e., Lakshmi), the **Tennan** (i.e., Pāṇḍya) and **Vaṇavan** (i.e., Chēra)¹ whose long hand holds the bow and whose one word (of command) was accepted by the earth (bounded by) the noisy sea, who appeared in the form of Vishṇu with victory thrice-told², protecting the earth under his cool white umbrella, well praised by the goddess of the flower (i.e., Lakshmi), the goddess of the earth and the goddess of the tongue (i.e., Sarasvatī); who began his rule so brilliantly that the strength of the lord of Kālī was weakened; who, in the battle of **Pennāgaḍam** (surrounded by) an expanse of water and flowery groves and (situated) on the southern bank of the **Kāvēri** of blooming flowers and well-watered paddy fields, defeated the **Kāḍava** (king), who inconsiderately came and attacked (him) with his four-fold big army spread on all sides of the extensive earth girt by the black ocean, and drove (him) into the forest; and who crushing and driving in a fierce battle the **Āya-Vēl** and the **Kurumbas** that came and attacked (him) in great numbers, advanced with fiery spears and gained a victory over them in a battle at **Nāṭṭukkurumbu** (i.e., Kurumbu-nāḍu) (so that they) sought shelter in forests for (their) fortifications.

(L. 103). While the third year of the reign of this (king) was current, one (particular) day a bystander of **Kūḍal** (i.e., Madura) (the city of) mansions and high ramparts, having cried out (by way of complaint)³, the king himself at once called him mildly and was pleased to ask him first "what is your complaint." The bystander submitted thus "Oh! Mighty king of powerful army! Formerly without swerving from the pure (path) prescribed by law, (the village) called **Vēlvikuḍi** included in **Pāgaṇūr-kūṇṇam**, whose flowery groves touched the sky, was designated **Vēlvikuḍi** and was granted through the *kēlvi* (Brahmans) by your ancestor, the great lord known as **Palyāgamudukuḍumi-Peruvaḷudi**, who protected (the earth) girt by the ocean with an army of spearsmen who never miss (their aim). It has (since) been resumed by the ignoble (yet) ocean-like army of the **Kaḷabhras**." The king gently smiled and said: "Very well, very well, prove your antiquity (of the gift) by (a reference to) the district (assembly) and receive (it back)." He (the supplicant) proved then and there, the antiquity of his (claim) by (a reference to) the district (assembly). Thereupon the powerful king, of long arms holding the bow, being overjoyed was pleased to declare "what was granted formerly by my ancestors according to rule, is also granted by Us," and so saying he, of (many) chariots and ocean-like army, gave (it) with libations of water to **Kamakkāpi Nārchinṅan**, the headman of **Korkai**.

(L. 118). The four big boundaries of this (village) given in full detail are:—(The eastern boundry is) to the west of the boundary of **Nagarūr** surrounded on (all) sides by faultless flower-gardens. The southern boundary of this (is) to the north of the field (called) **Kūḷvandai-śēy** of **Kuḷandēvan** and of the banyan tree in the **Kalandai**-pond. The western boundary of this (is) to the east of the mound (*peruppu*) on the western side of the field (called) **Oḍumaiyiruppai-śēy** of the faultless **Korraputtūr**. And the northern boundary of this (is) to the south of the mound on the northern side of (the village of) **Pāyal** where lotuses grow in canals.

(L. 124). The land included within the four big boundaries thus described is also given away by us, inclusive of *kārāṇmai* and *mīyāḷchi*, in the same manner as it had been given formerly by our ancestors.

(L. 126). The *āṇatti* of this (grant) correctly described is **Madavikalap**, **Māraṅgari**, the crest-jewel of the **Vaidyaka** family entitled **Mūvēndamaṅgalappērāriyan** who was favoured by the king of kings, whose army fought powerfully like a thunderbolt, in battles where

¹ See foot-note 1 on p. 807, above.

² கொற்றமுன்முடனியம்ப could not be satisfactorily interpreted.

³ I have taken *ākroḍhikka* to stand for *ākrośikka* from root *krus* with the prefix *ā*; see *Naishadhakavya*, h. I, v. 81, where *ā-krusyata* is explained 'cried out in order to expose a mistake committed.'

machines shaped like wild hogs (*śnapporī*) killed (*the enemies*) in (*close*) fight with (*drawn*) swords when the kings of the east (*Pūrvarājar*) possessing clamorous battalions of fighting men rose up, and put to flight with (*great*) loss in an infantry attack at Venbai, the Vallabha of a vast army of archers, on the occasion when the excellent daughter of Gaṅgarāja who wore a garland of highly scented flowers (*dribbling*) honey was secured and offered to Kōṅgarkōṇ (*i.e.*, the Pāṇḍya king)¹, who was a prince of the race of Karavandapurattavar, who possessed a powerful and big army that crushed the pride of those who came to fight being (*thither*) brought together by (*i.e.*, under the leadership of) kings wearing many bracelets and possessing an army of spearsmen who wielded deadly weapons.

(L. 134). Kāmakkāṇi Śuvaran Śiṅgaṇ, the headman of Korkai, who owns this *brahmadēya* reserving for himself one-third of this (*village*), gave the (*remaining*) two parts to fifty Brāhmanas with libations of water. In this are included the four and a half *paḍāgāras* (*of land*) of Mūrti Eyyiṇ approved by the (*village*) assembly. And in the part reserved for himself in this (*village*) he gave with the approval of the (*village*) assembly four *paḍāgāras* to his younger brothers and six *paḍāgāras* to his younger paternal uncle's children. And the owners of the three parts with their united approval gave four *paḍāgāras* (*of land*) to the general (*Senāpati*) Eṇadi alias Sattan Sattan, who composed² this eulogy (*prastuti*).

(V. 18). The *ājñāpti* of this (document) was Maṅgalarāja, the very sweet (*madhuratara*) poet (*kavi*) and orator, well versed in the sciences, a Vaidya and a resident of Karavandapura.

(V. 19). Oh! Dharma! A (*learned*) man must render protection to the deeds of others. Indeed (*these are*) the feet acquired by (*i.e.*, on which stands) great fame. The world was all created by Dhātṛi (Brahman). Still kings desirous of merit protect the earth.

(V. 20). No gift is greater than the gift of land; nor is there a greater sin enjoined (*on man*) than (*that of*) resuming land (*already given*).

(V. 21). Oh! Gladdener of your race! He that makes a gift on this earth blesses (*his*) ten generations past and future; and he that takes away (*that which has been given*) destroys ten generations past and future.

(V. 22). To him that robs land given by himself or by others, there is no expiation anywhere except in the dreadful hell.

(V. 23). Lands have been given away by many. Different kings are ruling (*them*). The fruit (*of protection*) belongs to him whose land it happens to be (*at the time*). These four are verses in the Vaishṇava-Dharma.

(L. 151). "The flower-like feet of those who protect this (*charity*) shall be on my crown." The king himself was thus pleased to say and caused a copper-plate grant to be executed at once.

(L. 152). Śuttakēśari-pPerumbāṇaikkāraṇ who engraved this (*document*), and to whom were allotted through the favour of the great mon (*of the village*) one house site, two *mā* of (*wet*) field and one³ dry field received (*the above*). This is the signature of Yuddhakēśari-Perumbāṇaikka[ra]ṇ.

¹ See above, p. 307. If we took Kōṅgarkōṇ as referring to the king of the Kōṅgas, the reason for Māraṅgāri taking part with the Kōṅga king will have to be explained. So far as we know, the Kōṅga king was an enemy of the Pāṇḍya and was on several occasions defeated by him.

² The word *paḍina* clearly indicates that the composition was in verse.

³ Perhaps one *mā*.

No. 17—THE NALANDA COPPER-PLATE OF DEVAPALADEVA.

BY HIRANANDA SHASTRI, M.A., M.O.L., OOTACAMUND.

This copper-plate was unearthed by me at Nālandā during the course of my archæological explorations of the well-known Buddhist site there in 1921. As I have already stated in my annual progress report for the year 1920-1921, where¹ I have given a tentative account of the document, the plate was found in the antechamber of the so-called monastery B which has yielded many interesting antiques testifying to its past glory. The debris round it and its encrustation showed that the plate must have suffered from the conflagration that destroyed the building in whose remains it lay buried for so many centuries. Fortunately, it has escaped destruction, and excepting a slight injury here and there, the whole of the record together with its seal is practically intact. It has been very carefully treated by the Archæological Chemist and has now become fairly readable.

The plate bears forty-two lines on the obverse and twenty-four on the reverse, each measuring about 1' 4" long, excepting the last line on the second side which is only 4" in length. The inscription is written in early Dēvanāgarī script and its language is Sanskrit. The formal part of the grant which it registers is in prose and the rest is in verse, excepting the words *om svasti* and *tathā cha dharmānuśāsanāślokaḥ*, written at the commencement of the first and the second side respectively. The seal, which the accompanying fac-simile illustrates, is soldered to the plate and bears the legend Śrī-Dēvapāladēvasya meaning "of the illustrious Dēvapāladēva", written below the emblem of the dharmachakra placed between two gazelles as in the seals of other Pāla kings. The wheel or dharmachakra symbolizes Gautama Buddha's unfolding the Law and the diffusion of knowledge to the world that was groping in darkness and the deer refer to the Mṛigadāva forest which is now represented by Sārṇāth near Benares where the 'Great Sage' turned 'the wheel' for the first time while delivering the great sermon to the five monks or 'Pañcharaggīyas'. That the Pālas adopted this symbol is but natural for we know that they were staunch Buddhists and patronised learning.

The introductory portion of the inscription, consisting of the first twenty-five lines, is identical with the similar portion of the Mungr (Monghyr) copper-plate grant of the same king that has been edited by the late Professor Kielhorn.² It enables us to remove the few doubts the said scholar had in his reading of the record. As is shown by the dates given in the two documents, the Nālandā grant is posterior to the other by some six years though both were issued from the same place, viz., Śrī-Mudgagiri-samāvāsi-śrīmaj-juyaskandhācāra or the victorious camp at Mudgagiri, the modern Monghyr in Bihār.

The inscription was written and engraved with considerable care; still a few inaccuracies are to be noticed in it. These have been pointed out in the footnotes added to the text below. As regards orthography, it resembles very much the other grant from Monghyr and there is, perhaps, little to be added to the remarks which Kielhorn made about it while editing the latter document. As to his statement³ that "the only passages about which I am at all doubtful, and in which the rediscovery of the plate may prove me to have gone wrong are the words *suvinayinām* in line 5; *rājakuliya-samasta* in line 40 and *karahiranya* in line 45",—on the authority of this epigraph, I may say that his reading *suvinayinām* should be treated as wrong though the translation is right. This plate gives *sati kritinām* which must have been

¹ A. R. Central Circle, 1920-1921, pp. 37 ff.

² Ind. Ant., Vol. XXI, pp. 253-258.

³ Ibid, p. 253.

the reading in the other document also, the sense being that as this king furnishes a living example people have to believe in the historical reality of the rulers like Pṛithu, Sagara, etc. The remaining two words, as is shown by this plate where they occur in line 35 and line 42, respectively, were correctly read by him.

The charter was issued by the devout worshipper of **Sugata** or **Buddha**, the *Paramēśvara-Paramabhaṭṭāraka* and *Mahārājādhirāja*, the illustrious **Dēvapālādēva**, the son and successor of **Dharmapāla**, who is regarded to have been the most powerful of the **Pāla** kings of Bengal. As I have just stated, its introductory portion is identical with that of the other grant and gives the genealogy of the donor which has already been discussed by scholars. The formal part of the grant, which the inscription registers, is worth considering. The wording is the same as we find in the other document. The officials mentioned are also similar, including the "*Pramātri*" and the "*Śarabhaṅga*"; excepting the "*Prāntapāla*" who is left out, though the order in which they are named is different. Amongst the names of the countries mentioned in line 35 of the Mungir (Monghyr) plate, this inscription puts *Ōḍra* in place of *Gauḍa* and omits *Lāṭa* altogether. Herein we are told that **Dēvapālādēva** at the request of the illustrious **Bālaputradēva** the ruler of **Suvarṇadvīpa**, made through an ambassador, granted five villages, four of which lay in the **Rājagṛiha** (**Rājgir**) and one in the **Gayā vishaya** (district) of the **Śrī-Nagarabhukti** (**Patna Division**) for the increase of merit and fame of his parents and himself for the sake of income toward the blessed Lord **Buddha**, for various comforts of the revered *bhikṣus* of the four quarters and for writing the *dharma-ratnas* or Buddhist texts (i.e. for the three jewels) and for the upkeep of the monastery built at *Nālandā* at the instance of the said king of **Suvarṇadvīpa**. The endowment, being entirely **Buddhist**, forms a distinctive feature of the grant and amply justifies the epithet of *parama-Saugata* applied to the donor. The four villages granted in the **Rājagṛiha vishaya** were **Nandivanāka**, **Maṇivāṭaka**, **Naṭikā** and **Hastigrāma** and the one in the **Gayā vishaya** was called **Pālāmaka**. As is usually the case in such grants, this part of the document ends with the date of the endowment which is the 21st day of **Kārtika** of the (regnal) year 39 and is written after the orders of the royal donor demanding regular payment of all the revenues due for the purposes noted above.

The second side of the plate first gives the well-known imprecatory and benedictory verses and, thereafter, introduces **Balavarmman** who acted as the *dūtaka* in this 'meritorious undertaking' and whom it describes as the 'overlord of **Vyāghrataṭi-maṇḍala**, ever ready to fight his foes independently.' Evidently he was the official of the King of Magadha entrusted with all arrangements to be made in connection with the grant. Then the inscription supplies, though unfortunately too meagre, an account of **Bālaputradēva**, the king of **Suvarṇadvīpa** at whose instance the endowment was made giving, also, some information regarding his ancestry. It is mainly in this connection that this document is specially interesting and possesses considerable international value. We learn that the dynasty to which **Bālaputra** belonged was that of the **Śailēndras**, who were Buddhists and held the island of **Java** under their sway about the eighth century of the Christian era or the Śaka year 700. The latter fact about the **Śailēndras** is already known from the **Kalāsan** inscription which has been published by Dr. (now Sir) R. G. Bhattacharya¹ and Dr. J. L. A. Brandes². But this **Nālandā** copper-plate introduces to history for the first time **śrī-Bālaputradēva**, the **Śailēndra King of Suvarṇadvīpa** together with some of his relations, as well as the *dūtaka* (of the grant), namely, **Balavarmman**.

The illustrious **Mahārāja Bālaputradēva**, our inscription tells us, was the overlord of **Suvarṇadvīpa**. His mother was **Tārā**, the daughter of a King **Dharmasētu** of the lunar race and

¹ *Journal of the Bombay Branch of the Royal Asiatic Society*, Vol. XVII, Part II, for 1887, Art. I.

² *The Tijdschrift voor de Taal-, Landen-Volkenkunde van Nederlandsch Indië*, XXXI (1886), p. 240 sq.

the queen consort of the mighty king who was the son of the renowned ruler of "Yavabhūmi." The latter, we are told, was the ornament of the Śailendra dynasty and 'his name was conformable to the illustrious crusher or tormentor of his brave enemies'. Though the epigraph gives high praises for all these rulers, yet it contains no other information regarding their identity. The name of the father of Bālaputradēva is not given at all but the name of the grandfather is said to have been something like 'Śri-vīra-vairi-mathana', meaning 'the illustrious destroyer of heroic foes'. This would lead us to surmise that the name must have been one like Paramaraddi-dēva, Śatruñjaya, Arimaraddana, Arindama, etc., but what it really was I am not in a position to find out. The Yavabhūmi and the Suvarṇadvīpa are evidently identical with the Yavadvīpa and the Suvarṇadvīpa islands spoken of in Sanskrit works like the *Rāmāyaṇa*¹ or the *Kathāsaritsāgara*² and are unquestionably the modern Java and Sumatra. While speaking of Bālaputradēva as the king of Suvarṇadvīpa and his grandfather as the ruler of Yavabhūmi, the author of our inscription, apparently, took both the islands as one considering them practically united. As M. Duroiselle kindly tells me, the consensus of opinion, arrived at by scholars like Barth and Kern, is that Suvarṇadvīpa and Yavadvīpa are the same, that is Java-Sumatra. The document goes to confirm the view that Yavadvīpa is Java proper and that Suvarṇadvīpa is properly Sumatra. This Suvarṇadvīpa, however, is different from the Suvarṇabhūmi, which, as M. Duroiselle has kindly informed me, in its most extended sense refers to Indo-China, but, particularly, to the country extending beyond the eastern and northern coasts of the Bay of Bengal or Rāmaññadēśa (i.e., lower Burma).

Now the question which would present itself for solution is, who were the Śailendras mentioned in the plate? There are only two Javanese inscriptions in Nāgarī, known to me, which were issued by a king of the Śailendra dynasty. One of them, to which I have alluded above, commemorates the foundation of a temple of Tārā, the well-known Goddess of the Mahāyāna pantheon, the setting up of her image, and the building of a monastery in the year 700 of the Śaka era during the prosperous reign of a king of this dynasty³ whose name to our regret is not forthcoming. The other⁴ inscription is not yet published and the following information regarding it I owe to the courtesy of Dr. Bosch, Director of Archaeology in Netherlands-India. It comes from Klurak, a site between the Prambanam and Sewu-temples in Central Java and belongs to the Śaka year 704, the object being to commemorate the erection of an image of Mañjuśrī, another noted divinity of the Mahāyāna pantheon. In one of the lines of this inscription Dr. Bosch reads: *rājā dhṛitā dhṛitimatā dharaṇḍranāmna* and finds the king's name to be Indra, though one could take it to be Dharaṇḍra (earthly Indra) as well. Yet another inscription I know of, which is connected with this evasive race of the Śailendras, comes not from Java but from India and, like our Nālandā inscription, records the erection of a monastery and an endowment for it. It is engraved on twenty-one copper-plates now preserved in the Leyden Museum in Holland and belongs to the reign of the Chōla King Rājaraṇa-Rājakesarivarman (985-1013 A. D.). This highly interesting document tells us that the illustrious king Maravijayōttungavarman of the Śailendra dynasty and the lord of Śrīvijaya⁵ caused to

¹ Canto IV, Chap. XL, St. 30, and the *Tilaka* commentary on these verses. Here we find that Java in remote antiquity formed a large principality which comprised not less than seven minor states.

² *Turnaga*, 57; *Sts.* 96, 134, 173, etc.

³ राजे इन्द्रवर्मा राजः श्रीसुन्दरं विजयवर्मा, Dr. Bhandarkar read in the sixth line of this inscription *Śailendravarmman* and thought that *Śailendravarmman* was the proper name of the father of the donor whose name he took to be Paramkaraya. The correct reading, however, as the late Dr. J. L. A. Brandes has shown, must be *Śailendravarmman*.

⁴ Except these two inscriptions there exists a number of fragments of inscribed slabs, which according to Dr. Bosch, might be attributed to the Śailendra race but they are all too weather-worn to be deciphered.

⁵ Dr. Hultzsch takes *Śrī-Vijaya* of Tamil inscriptions as the equivalent of Śrī-Vishaya (above, Vol. IX, p. 221).

be built a lofty and very beautiful monastery at **Nāgapattana**, the present port of **Negapatam**¹ and that it was endowed by the **Chōla** king **Rājārāja**, thus furnishing an exact parallel to the **Nālandā** monastery of our plate.² This **Śrīvijaya** is the same as the **San-fo-tsai** of the Chinese Annals and, according to **M. George Coedes**, must be identified with the kingdom of **Śrīvijaya** or **Palembang**, which is a residency of **Sumatra**.³ The **Leyden** grant says that **Māravijayōttuṅgavarman** was the overlord (*adhipati*) of **Śrīvijaya** who, while extending the kingdom of **Kaṭṭha**, caused that monastery to be built in the name of his father. Thus on the authority of this invaluable record it becomes clear that, about the end of the 10th century **A. D.**, **Sumatra** was governed by the **Śailendra** dynasty to which king **Māravijayōttuṅgavarman** or his father **Chandāmānivarman** belonged. That both **Sumatra** and **Java** were under the sway of the **Śailendras** about the ninth century we glean from the **Nālandā** copper-plate inscription. That they were governed by the same dynasty in the seventh century of the Christian era we learn from the two inscriptions to which I have referred above. In one of the inscriptions⁴ engraved on the south wall of the well-known temple at **Tanjore** we find that **Rājendra-Chōla** caught a king of **Kaṭṭaram**, named **Saṅgrāma-vijayōttuṅgavarman**, and took his vehicles as well as accumulated treasure. This king of **Kaṭṭaram** in the light of the **Leyden** grant was, probably, the successor of **Māravijayōttuṅgavarman**, the **Śailendra** king of **Śrīvijaya** spoken of in it. If the **Tanjore** inscription is to be trusted—I do not think there is any reason why it should not be—we can say that **Rājendra-Chōla**, while capturing the king, succeeded in conquering the kingdom of **Śrīvijaya** or **Palembang**. The **Leyden** plates tell us that he confirmed the grant made by his father **Rājārāja** for the monastery built by the **Śailendra** king **Māravijayōttuṅgavarman** or the predecessor of the very ruler whom he caught and dispossessed of heaps of treasures. This would lead us to surmise that **Saṅgrāma-vijayōttuṅgavarman** proved refractory and the **Chōla** King had to take the extreme step to bring him round. Here it may be remarked that in the documents, known at present, these **Śailendras** or the rulers of **Śrīvijaya** are nowhere mentioned as the feudatories of the **Chōlas** or other Indian kings. Building convents or *vihāras* in one's territory does not necessarily indicate tutelage⁵ though it does show friendship or mutual regard. That the **Śailendras** founded monasteries in India at **Nālandā** or elsewhere certainly signifies their being fervent Buddhists. These *vihāras*, like the one founded at **Bodhi Gayā** by **Mēghavarṇa** of **Ceylon** during the **Gupta** epoch, gave shelter to their own people as well as others. **Dēvapālādēva** was a staunch Buddhist. He endowed the monastery, which **Bālaputrādēva**, the **Javanese** King, founded at **Nālandā**, at the latter's express request, communicated to him through a *datuka* or ambassador. But this fact alone cannot imply that the ruler of **Java** was a vassal of the King of **Magadha**. Though the capture of the King of **Kaṭṭaram** by **Rājendra-Chōla** in later days indicates submission no doubt, yet I think, to show that the **Śailendras** were really the feudatories of the **Chōlas**, proof is still wanting. Under the existing circumstances what we can safely assume is that the relations of these Kings were rather based on trade and traffic and were of a peaceful nature.

¹ It was probably this structure, which, as the late Mr. Smith has said in his *Early History of India*, 3rd ed., p. 466, survived in a ruinous condition until 1867, when the remains of it were pulled down by the Jesuit fathers and utilized for the construction of Christian buildings.

² The splendid convent built by King **Mēghavarṇa** of **Ceylon** at **Bodhi-Gayā** near the holy *Buddhruma* about the year **A. D. 360** with the permission of **Samudragupta**, the Great, affords another instance of this kind. For a brief account of it see Smith's *Ancient History of India*, 8rd ed., p. 287.

³ *Encyclopædia Britannica*, XI ed., Vol. XXVI, p. 73. For mention of **Śrīvijaya** in an old **Malaya** inscription probably of the 7th Century **A. D.**, lately found in **Palembang**, see **Ph. S. Van Ronke**'s notice in the *Acta Orientalia*, Vol. II, Part I, p. 21.

⁴ *South-Indian Inscriptions*, Vol. II, pp. 105 ff.

⁵ The late Mr. **Venkayya** (*A. S. R.*, 1911-12, p. 175), apparently, assumed that the **Śailendras** were feudatory to the **Chōla** Kings.

That close relationship must have existed between Coromandel and the Far East during the earlier centuries of the Christian era is pretty certain. The part played by Tāmrālipti or Tāmlūk as an important port in those days for the sea-borne trade between India and the Archipelago will similarly associate Bengal with the Far East. These Śailēndras were staunch Buddhists to whom all the magnificent Buddhist buildings which we find in Central Java, like the one which probably contained the Tārā image mentioned in the Chaṇḍi-Kalāsan inscriptions spoken of above, owe their origin. Now, the question is whether they were emigrants from India or were indigenous people of Java-Sumatra, who embraced Buddhism in preference to Hinduism. The Yūpa inscriptions of King Mūlavarmman from Koetei or East Borneo or other early epigraphical records, which have been brought to light from Champa, Cambodia or Indo-China by eminent French or Dutch savants, would show that India has had a considerable share in the colonization of the Far East. The Yūpa inscriptions, as Dr. Vogel has already pointed out in his very learned brochure,¹ inform us that the erection of the sacrificial posts on which they are engraved was due to the twice-born priests or Brahmans, who had carried their ancient civilization and religion to Borneo, as well as, to Java and Sumatra and that on these priests King Mūlavarmman conferred rich grants of gold and land; a fact showing that as early as about 400 A. D. high caste Brahmans or *Vipras* migrated to the Far East and settled there. Fa-Hien found Brahmans settled in Ye-poti (Java or perhaps Sumatra). Sumatran civilization and culture seem to be of Hindu origin. Sumatra was probably the first of all the Archipelago to receive emigrants from India.² The names like Coliya, Pandiya, Mēliyalā, by which some of the tribes that have settled in West Sumatra are known, and the fact that emigrants from India are designated by the term Kēling or Kling, which is clearly derived from Kalinga, would show that Southern India, including the Telugu country, had ample share in the colonization of the island or the Far East, as Dr. Vogel has already stated in his paper.³ The matrimonial alliance mentioned in our Nālandā charter, which the father of Bālaputrādēva had with a mighty king of the Lunar race, would, perhaps, lead us to trace the origin of the Śailēndras of Java-Sumatra to India. If a conjecture can be hazarded, these Śailēndras were emigrants from Kalinga or say Southern India. I am not aware if the term Śailēndra was ever applied to any of the dynasties which ruled in the south⁴ or any other part of India. It will be going too far to connect it with the Śailavarmśa⁵ or the Śailōdbhavaśa⁶ or other dynasties like the Śilāhāra having somewhat similar appellations. It may be pointed out, however, that the name of Malaiyamān, which is an exact Tamil rendering of the Sanskrit word *Śailēndra*, meaning 'the lord of mountain or mountains', is to be met with in some of the inscriptions discovered in the South Arcot and Salem districts of the Madras Presidency where it is applied to some chieftains, who flourished about the 10th century A. D. Tamil literature, however, knows of the Malaimāns, who might be attributed to the 7th and 8th centuries A. D. These chieftains were called Milāḍuḍaiyār or the rulers of Milāḍu, a contracted form of Malaiya-nāḍu or hill-country, and they claimed

¹ *The Yūpa inscriptions of King Mūlavarmman from Koetei* (East Borneo), p. 202.

² *Encyclopædia Britannica*, Vol. XXVI, p. 74. It may be incidentally pointed out that the statement made here in the *Encyclopædia* to the effect that Sumatra was called the first Java was caused by a wrong reading, as I learn from Prof. Krom through Dr. J. Ph. Vogel, and requires correction.

³ *The Yūpa inscriptions*, etc., pp. 195-6.

⁴ The late Mr. Venkayya (*A. S. R.*, 1911-12, p. 175) was inclined to connect them with some part of Orissa apparently on account of the similarity of names like Śailavarmśa and Śailēndravarmśa, pp. 42 ff. For Śailavarmśa, see *Ep. Ind.*, Vol. IX, p. 283 and *J. B. A. S.*, Vol. LXXIII (1904, p. 2 282 f.)

⁵ *Ep. Ind.*, Vol. VI, p. 42.

⁶ *Ibid.*, Vol. XI, p. 282.

connection with the Chēdi family¹. It is also noteworthy that sometimes their names end in *varmman*². From the records noticed above we find that the names of the Śailēndras of Java-Sumatra or Śrīvijaya ended in *varmman*.³ The name of the Śailēndra ruler given in the Nālandā plate on the other hand ends in *dēva*. This looks rather strange. The name Bālaputra itself, signifying 'young son' is curious. This ending of *dēva*, however, occurs only in the prose and formal portion but not in the other or metrical portion, which describes and eulogises these Śailēndras. This would go to suggest that the suffix was left out because the metre did not require it, or possibly because, it did not form an integral part of the name and would have been replaced by *varmman*, a general suffix or surname of the ruling caste or the Kshatriyas. The name, however, is pure Sanskrit as is the name of Tārā the mother of Bālaputradēva, or Dharmasētu, her father, and would point to emigration from India. Had the names of the two ancestors of Bālaputradēva, that is to say, his father and grandfather, been given, we could be definite in the matter, for, if these names were un-Indian, as in the case of Kuṇḍinga, his son Aśvavarman and grandson Mūlavarman of Borneo, we could conclude that the Sanskrit names must have been taken after conversion to Hinduism, or rather Buddhism. But in none of the names of the Śailēndras do we find any foreign sound at all, suggesting that they were the natives of the islands originally and came into the fold of Buddhism afterwards.

The names of the Pāla kings and other personages mentioned in the introductory portion of this grant have been dealt with by Kielhorn or other scholars in connection with the contents of the Muṅḍir copper-plate inscription. So I need not notice them here. But, besides them and the Śailēndras, our record speaks of two more persons and they require special mention. One of them is Dharmasētu whom the inscription describes as a scion of the Lunar race and the father of Bālaputradēva's mother, namely, Tārā. To our regret it does not supply any other particular regarding him and it is hardly possible to identify him or to say

¹ Mr. K. V. Sabrahmanya Ayyar, to whom I am indebted for this information, has kindly given me the following note on the Malaiyamāns :—

"Ancient Tamil works mention the names of a number of Malaiyamān chiefs, who might be attributed to the 7th and 8th centuries A. D. Some of these are :—(1) *Malaiyamān* Tirumūḍikkāri, (2) *Malaiyamān* Śōḷiya-Enādi Tirukappan, (3) *Malāḍar-Kōmṣu* Meypporuḷ-Nāyanār and Narasiṅga-Munaiyariyar of Tirumūḍippāḍi. Their capital was Tirukollur, the head-quarters of a *taluk* in the South Arcot district and a railway-station in the Kāṭpāḍi-Viḷuppuram section of the South Indian Railway. It is said to have been situated within the Chēdi country.

The Malaiyamān chiefs appear to have been rendering help to one or the other of the principal powers of the South, *viz.*, the Chēra, Chōḷa, Pāṇḍya and the Pallava. Narasiṅgamunaiyariyar was a contemporary of the Śaiva saint Sundara-Mūrti-Nāyanār of the 8th century A. D. : he is counted as one of the canonised 63 Śaiva devotees of the Tamil country. In the account given of No. 3, in the Tamil hagiology, *Periyapurāṇam* figures a Tattan, whose name may be regarded as a variant of Datta. Besides, one of the poems of the Tamil anthology, *Pattuppāṭṭu* was composed in honour of a certain "Ārya King Piragadattan (Bhṛigu-Datta)". It may be noted that the Malaiyamān chiefs belonged to the Bhṛigu race as is evidenced by their inscriptions. Epigraphical reference to Narasiṅhamunaiyariyar is found in the Tanjore inscriptions of the Chōḷa King Rājārāja I (A. D. 985-1013). In an early stone record of Rājākēśarivarman found at Tirunāgēśvaram near Kumbakonam, of about the 9th century A. D. mention is made of Milāḍuḍaiyar-paḷḷi.

It is interesting to note that the later members of the Malaiyamān family, who figure in numerous stone inscriptions, call themselves invariably Chēdiyarāyas (Chedirājas) and they are mostly subordinates of the Chōḷas of the 10th to the 13th centuries A. D. The appellation *Chēdiyarāyan*, assumed by almost all the chiefs, if it is not a mere accident, as it could not be, must indicate that they were the rulers of the Chēdi country. This fact taken with the names like Datta would make one infer a colonisation at some remote past of a branch of the line of Chēdi Kings, in the South Arcot district, where we find them."

² E. Hultzsch, *Ep. Ind.*, Vol. VII, pp. 185 and 145.

³ Dr. Vogel in the aforesaid publication (page 194) remarks :—"Considering that among the dynasties of India proper there is a great variety of such royal surnames, as *āditya*, *gupta*, *chandra*, *dēvapāla*, *rāja*, *vardhana*, *śaśana*, and *śena*, the almost universal employment of names in *varmman* in the Far East is certainly very remarkable." The instance of our Bālaputradēva will furnish an exception.

whether he was an Indian king or some ruler in the Far East. The name whether it is read as Dharma or Varma-*śetu* appears to be new. The other interesting name occurring in the document is that of **Balavarman** the ruler of *Vyāghrataṭi*-*maṇḍala*, who acted as *dātaka* on behalf of the Magadhan king. As to why he was selected or what special connection he had with the ruler of such a remote island as Sumatra or Java, and whether he had been there or known personally to that king our inscription makes no mention. Apparently, there was no direct political relationship between the two; for, we know from the Khalimpur¹ plate of Dharmapālādēva that the *Vyāghrataṭi*-*maṇḍala* lay within the *bhukti* of Puṇḍravardhana, which was under the sway of the Pāla king Dharmapāla and, evidently, of Dēvapālādēva after him. Puṇḍravardhana is the same as Paṇḍravardhana—Puṇḍra and Paṇḍra being synonymous—which is the modern Rājshāhi district of Bengal². The use of the word *adhipati* would indicate that in this instance at least the term *maṇḍala* connotes a larger area than *viśaya*, which in the majority of cases seems to include a *maṇḍala*³. During the reign of Dēvapālādēva, *Vyāghrataṭi* was governed by a distinct ruler called **Balavarman**. The way in which he is praised in this epigraph, as the right arm of the Emperor, would show that he had a high rank even though he was one of the feudatories of Dēvapālādēva. As, however, our plate gives no genealogy or particulars about him his personality is very vague. A few homonymous⁴ rulers are known to have flourished about that time but they appear to be quite different personages and even their dates will not agree with that of this plate. It looks curious that though the charter mentions the *dātaka* of the King of Magadha yet it leaves the ambassador or ambassadors of the Javanese King unnamed altogether.

The vague manner in which the inscription describes the rulers of the Far East or Sumatra-Java and their relative king of the lunar race would show that its author did not know much of them. He knew of Bālaputrādēva and his mother Tārā. The latter he compared to the goddess of that name. It is not improbable that the grant registered in the epigraph was made chiefly at her instance.

Our plate mentions several places calling for remarks. Out of these, I have already noticed three, namely, *Suvaranṇadvīpa*, *Yavabhūmi*, and *Vyāghrataṭi*. Of the remaining ones *Nālandā* is the most important. The way, in which this record speaks of it, would show that it continued to be as important a centre of Buddhist lore as it was during the time of Hiuen Tsang's visit. The spelling of the name given in this document is *Nālandā* which is the correct way of writing it. The same spelling is given in a votive inscription on the image of

¹ *Ep. Ind.*, Vol. IV, pp. 243 ff. *J. B. R. A. S.*, LXIII (1894), pp. 39 ff.

² Smith *Early History of India*, p. 373. As has already been stated by Cunningham (*A. S. R.*, Vol. XV, pp. 112 ff.) Kāntāra is another name of Puṇḍra or Paṇḍra, i.e., sugarcane, and the Mahākāntāra of the Allahabad inscription of Samudragupta, the Great, was probably an older name of this province which, about the middle of the fourth century of the Christian era, was governed by a King Vyāghra. Thus it does not appear to be improbable that the district of *Vyāghrataṭi* or the tiger's precipice—unless of course *vyāghra* is taken in the sense of castor oil in which case the word *Vyāghrataṭi* would be the slope marked or overgrown with castor plants,—was named after this tiger king.

³ This would rather show that no mistake was made in the text of the Khalimpur grant and that Kielhorn's statement in the *Ep. Ind.*, Vol. IV, p. 253, footnote 3 that it was, will be obviated.

⁴ For instance we know of a Balavarman, the lord of Prāgyōtisha (Gauhati or Assam) from the Nowgong copper-plate (Dr. A. F. Hoerulo, *J. B. A. S.* LXVI, pp. 285 ff.) and another of Kārūsha or rather Brūhadgriha (Kielhorn; *Ind. Ant.* Vol. XX, pp. 123 ff.). On palaeographic grounds the former of the two has been assigned to the last quarter of the 10th century or say nearly one century later than the date of Dēvapālādēva. The other is too little known to admit of identification. The third ruler of the name, who will synchronise with our document, was the father of Avantivarman II, who was the feudatory of Mahēndrapāla of Kanauj (cir. 890 A. D.). To think of identifying him with the Balavarman of the *Nālandā* plate will be altogether unreasonable, for he was the ruler of Kathiawar, or Saurāṣṭra and a feudatory of the formidable rival of the monarch of Bengal.

Samkarshana which was dug out of the same site¹ and the newly discovered statue of Tārā. It again occurs not only in some Jaina writings but such an old work as the *Dīghanikāya*². However, it seems to be noteworthy that none of these works called Nālandā a university but only a prosperous town though Hsuen Tsang describes it as if it were a University. The way in which it is described in our plate would show that it was really a centre of Buddhist learning.

As to the remaining place-names mentioned in this document, I think, Śrīnagara or Śrinagara-bhukti must be identified with modern Patna, which as a district, includes Rājagriha (Rājgir) and, as a division or commissionership, comprises the district of Gayā, even now. It is true that in the Khalimpur grant of Dharmapāladeva, which has been referred to above, the name given for the city is Pāṭaliputra and not Śrīnagara or Nagara, still, I think, there were two designations, the one, viz., Pāṭaliputra, which meant the whole town and the other, viz., Śrīnagara, the main part of it, like the Bankipore of to-day. Nagara means the chief town generally, but in this case it meant the town, the prefix Śrī implying prosperity or wealth of the town. In other words Pāṭaliputra was the *pattana*³ and the seat of Government, especially in earlier days during the supremacy of the Mauryas or the Imperial Guptas,⁴ lay there, and Śrīnagara was its principal portion where the office of the *bhukti* or division was situated. One was concerned with the whole government but the other only with eight hundred⁵ villages coming in its jurisdiction or *bhukti*. Thus Śrīnagara must have been a part of the whole which was termed Pāṭaliputra.⁶ That, apparently, is the reason why the latter and not the former appellation of the town is to be met with in literature.

That Rājagriha and Gayā are respectively the Rājgir and Gayā of to-day requires no demonstration. The latter is a district still, though the former has now dwindled into a ruined town of the Bihār subdivision of Patna.

Regarding the villages which formed the object of the grant or endowment registered in the charter, we are told that Nandivanāka and Maṇivāṭaka were situated in the Ajapura-naya subdivision, Naṭikā in the Pilipinkā, and Hastigrāma in the Achalā-naya or subdivision of the Rājagriha *viskaya* or district, and that Pālāmaka was situated in the Kumudasūtra *vithi*, a subdivision of the Gayā district. If similarity of sound can be depended on, I would propose the following identifications to which proximity of Nālandā will lend a great support. The Ajapura 'naya' or subdivision of the inscription may possibly be represented by the Ajaipur⁷ village in the Ajai Hisse Chahāram Mauzā in the Bihār Thānā and the two villages Nandivanāka and Maṇivāṭaka, granted in it, would be the Nadiune or Naunvan and Manianwan villages of these days, which are included in the Bihār Thānā. Pilipinkā I am inclined to identify with the Pilkhi or Pilkee Mauza and the Naṭikā village with the Nai Pokhar of to-day, both lying in the Silān Thānā. Though I am unable to offer any identification for the ancient Achalā yet, I fancy, the village Hasti or Hastigrāma of the grant might be the Hethoa Bighā village of the Bihār Thānā if not the Hathi Tolā of the Maner Police subdivision. The old village directory⁸ of the Gayā district available to me does not, apparently, give any name

¹ See my *Annual Report of the Central Circle*, (Patna), for 1921, p. 5 and *J. B. B. O. R. S.*, Vol. X, pp. 30 ff.

² Vol. I, pp. 1 & 211-12.

³ Cf. 'प्रधानभूत नगरम्'; Bharata quoted in the *Sādhakalpadrūm* under 'Nagara'.

⁴ Cf. 'पुनर्न नृप राजधानी स्थिता' and 'नगरसदृशतद्वानमध्यं तद्व्यवहारस्थानम्'; Yaśōdhara in his *Jayamaṅgalā* on the *Kāmasūtra* of Vātsyāyana (N. S. Edition), p. 44.

⁵ Even in the Khalimpur grant the *śrīmajjāyaskāndhātāra*; or 'royal camp or headquarters' lay at Pāṭaliputra. For the meaning of this expression cf. V. Smith's *Early History of India*, p. 398 and footnote 3.

⁶ Similarly, I would identify the 'nagara-bhukti' of the 'legend on the seal', which, Dr. Spooner discovered during his explorations of the site (see his *A. P. R. (E. C.)* for 1916-17, p. 48) with the Śrīnagara-bhukti of this document.

⁷ *Village Directory of the Presidency of Bengal*, Vol. XXVI (Patna District).

⁸ *Village Directory of the Presidency of Bengal*, Vol. XXVII (Gayā District).

resembling the Kumudasūtra (or sūtra) or the Pālāmaka of our record and I refrain from offering a conjecture regarding their identity.

In connection with these place-names, it is interesting to note, that our document supplies one or two territorial terms, which appear to be new. The term *maṇḍala*, as I have remarked above, is here used, as in the grant of Amma II,¹ in the sense of *dēśa*, of which *viśaya* was a subdivision. The word '*vīthi*', which generally signifies a market, road-way or the like, appears to have been used, in this charter, in the sense of a division smaller than *viśaya*. Similarly the term '*naya*' seems to imply a like division. The use of these terms would show that *bhukti* was divided into *maṇḍalas* which were subdivided into *viśayas*, the latter being again portioned into *vīthi*s or *naya*s.² It is noteworthy that our document employs the term *naya* in the case of Rājagriha *viśaya* and *vīthi* in the case of Gayā *viśaya*. The former occurs regularly after (1) Ajapura, (2) Pilipikā and (3) Achalā, which lay in the district or *viśaya* of Rājagriha, while the latter term is to be found in connection with the district or *viśaya* of Gayā only. This would indicate that in the two *viśayas*, which were so contiguous to each other, there were, probably, different subdivisions made, apparently, for revenue purposes, Rājagriha being subdivided into *nayas* and Gayā into *vīthi*s. Thus, we can say that the villages Nandivanāka and Manivātaka lay in the subdivision or *naya* of Ajapura, Naṭikā in the *naya* of Achalā, all these falling within the Rājagriha *viśaya*. The village of Pālāmaka, on the other hand, which belonged to the district or *viśaya* of Gayā, lay in the subdivision of Kumudasūtra, i.e., Kumudasūtra-*vīthi*.³

TEXT.

Obverse.

Metres used : *Sārdūlavikrīḍitam* in vv. 1, 7, 8, 13, 14, 30, 31, 32, 33; *Praharṣiṇī* in vv. 2, 26; *Vamśastha* in v. 3; *Upajāti* in v. 4; *Indravajrā* in v. 5; *Aupachohhandasikam* in v. 6; *Āryā* in vv. 9, 11, 22, 23; *Harinī* in v. 10; *Kathōddhatā* in vv. 12, 15; *Anuṣṭubh* in vv. 16, 17, 18, 19, 29; *Vasantatilakā* in vv. 20, 24, 25, 27, 28; *Pushpitāgrā* in v. 21; *Sragdharā* in v. 34.

1 श्री स्वस्ति । सिद्धार्थस्य परार्थसुखितमतेस्वप्नार्णम[भ]-

2

स्वत-

स्तिष्ठिस्तिष्ठिमनुत्तरां भगवतस्तस्य प्रजासु क्रिया-

3

तु[1*]

यस्त्रैधातुकसत्त्वसिद्धिपदवीरत्युपवीर्योदया-
स्त्वित्वा

4

निर्हतिमाससाद सुगतस्त्वार्थभूमोऽक्षरः- [1*10] श्रीभाव्यन्द-

5

दतुलं त्रियसुपत्न्या

गोपालः पतिरभवद्वसुन्धरायाः [1*]

¹ *Ind. Ant.*, Vol. VII, p. 16; cf. Fleet, C.I.I., Vol. I.I., p. 32, footnote 7.

² It may be noted here that the term *vīthi* is also used in the sense of a division in the Ghughrāṭi plates of Samāchārādēva which have been edited by Mr. R. D. Banerji, in the August 1910 number of the *Journal of the Asiatic Society of Bengal*. Mr. Bhaṭṭasālī, who is re-editing the grant for this journal, seems to take the word in its usual sense, but, in the light of this Nālandā document, his rendering cannot hold good.

³ The reading can also be *sūtra*.

⁴ Expressed by a symbol.

⁵ Kielhorn has 'स्तिर'.

6

ह-

ष्टान्ते सति कृतिनां सुराणि यस्मिन् अचेयाः पृथुसगरादयोऽप्यभूवन् ॥२॥
विजित्य येना जलधेर्वसुन्धरास्त्रिमोचिता

7

मोचपरिग्रहा इति ।

सवाप्यसुहाप्यविकीचनाग्न्युनर्वनेषु व(व)न्धूदहशर्मतङ्गजाः ॥३॥ चक्षस्त्र-
मन्तेषु व(व)लेषु यस्य विश्वभरा-

8

या निश्चितं रजोभिः ॥¹

पादप्रचारक्षममन्तरिक्षस्त्रिद्विजमानां सुचिरम्ब(म्ब)भूव ॥४॥ शास्त्रार्थभाजा
चक्षतोनुशास्य वर्णार्थप्रतिष्ठापय-

9

ता स्वधर्मैः ॥²

श्रीधर्मपालेन सुतेन सोभूत्स्वर्गस्थितानामवृणः पितृणाम् ॥५॥ अचक्षे-
रिव जङ्गमैर्यदीयैर्विचक्षन्निर्दिष्टैः कदर्यमाना ।

10

निरुपद्रवमम्ब(म्ब)रं प्रपेदे शरणं रेणुनिमेन भूतधात्रो ॥६॥ वेदारे
विधिनोपयुक्तपयसा गंगासमेते³म्बु(म्बु)धौ ।⁴ गोकर्णदिषु चाप्यनुष्ठि-

11

तवतान्तीर्येषु धर्म्याः क्रियाः ॥⁵

भूत्वानां सुखमेव यस्य सकलानुदृष्ट्य दुष्टानिमात्रलोकाप्साधयतोऽ⁶नुषङ्गजनिता
सिद्धिः परचा-

12

प्यभूत् ॥७॥

'तैस्तैर्दिग्विजयावसानसमये संप्रेषितानां परैः सत्कारैरपनीय खेदमखिलं स्वां
स्वां गतानां भुवम् ॥८॥ कृत्यं भावयतां

13

यदीयमुचितं प्रीत्या नृपाणामभूत्

सोत्कण्ठं हृदयं दिव्ययुतवतां जातिस्रराणामिव ॥९॥ श्रीपरव(व)क्षस्त्र
दुहितुः क्षितिपतिना रा-

14

इकूट⁷तिक्षकस्य ।

रथदेव्याः पाण्डिर्जगृहे गृहमेधिना तेन ॥१०॥ धृततनुरियं सत्सोः
साक्षात्क्षितिर्गुं शरीरिणी ।⁸ किमवनिपतेः कीर्त्तिर्म-

¹ Two strokes in place of one.

² Symbol for न् at the end of a *pāda* is peculiar.

³ Kielhorn has सुमेता⁰.

⁴ This *daṇḍa* could be left out.

⁵ Kielhorn has तैर् तैर् which cannot be correct.

⁶ The way of writing the letter ट is peculiar.

This *daṇḍa* could be left out.

15

सौधवा गृहदेवता[1*]

इति विरुधतो युष्माक[रा*] वितर्कवतीः प्रजाः प्रकृतिगुह्यधियां शुभान्त-
हुणैरकरोदधः ॥[१०॥*] चाञ्चा प्र(प)तिप्रताम्बो सु-

16

तारजं समुद्रयुक्तिरिव ।

श्रीदेवपालदेवसुसुवज्जं सुतमसुत ॥[११॥*] निर्मोक्षो मनसि वाचि
संयतः ।¹ कायकर्मनि(णि)च यः स्मितः यचो[1*]

17

राज्यमाप निरुपपन्नवम्पितुर्वी(वी)धिसरव इव सौगतं पदम् ॥[१२॥*]

भाम्यस्त्रिर्विजयक्रमेण ।² करिभिस्तामेव विध्याटवीसुहृदामप्यमानवा(वा)प्यपय-

18

[सो] दृष्टा; पुनर्व(र्व)*श्ववः[1*]

कश्यो(म्बो)जेषु च यस्य वाजियु[व*]भिर्ध्वस्तान्यराजौजसो देवामिन्द्रितहारि-
हेषितरवाः कान्ताश्चिरप्रोषिताः⁴ ॥[१३॥*]; यः पूर्व व(व)लि-

19

ना कृतः कृतयुगे येनागमद्गर्गव-

स्नेतायां प्रकृतः प्रियप्रणयिना कर्णेन यो दापरे । विच्छिन्नः कलिना
प्रकटिषि गते कालेन लोकात्त-

20

रम्

येन त्यागपथस्य एव हि पुनर्विषयसुभीलितः ॥[१४॥*] आ गङ्गागम-
महितास्तपन्नशून्यामासितु(तो):⁵ प्रथितदशास्वकीतुकीर्त्तः[1*] उर्वीमा वदन्-

21

निवेतनाच्च सिन्धो-

रा कश्यीकुलभवनाच्च यो वु(वु)भोज ॥[१५॥*]

स खलु भागीरथोपथप्रवर्त्तमाननानाविधनौवाटकसंपादितसितुव(व)श्वनिहित[श्री]-

22

लशिखरत्रेणिविभ्रमात्⁶ निरतिशयधनघनाघनघटा(टा)श्यामायमानवासरलक्ष्मी-
सम्प्राप्त(म्बे)संततमन्त्रदसम्यग्गोदेष्टत्⁷ उदीचीनानेक-

23

नरुपतिस्तत्तत्सिद्धनामनेयस्यकश्चिन्नी-

खरखुरोरखातधूलीधूसरितदिगन्तरासात् परमेश्वरसिद्धसमायताश्वेत्तुम्बू(बू)दी-

24

पभूपाल-

पादातभरनसद्वतीः श्रीसुहृगिरिसम्भवाप्तिश्रीसज्जयम्भवावारयत् परमसौगत-
परमेश्वरपरमभटा(डा)रकस-

¹ This *daṇḍa* could well be omitted.

² This *daṇḍa* is unnecessary.

³ Kielhorn gave वाञ्छवाः

⁴ Kielhorn has चिरं वीक्षिताः

⁵ Kielhorn read सेती; and remarked that the lithograph he used gave *seti* (or *dhētū*). This inscription removes the possibility of *dhētū*. The reading must be सेती:

⁶ Read °नाप्तिर°.

⁷ Read °देवापुदीचो°.

A.—Obverse.

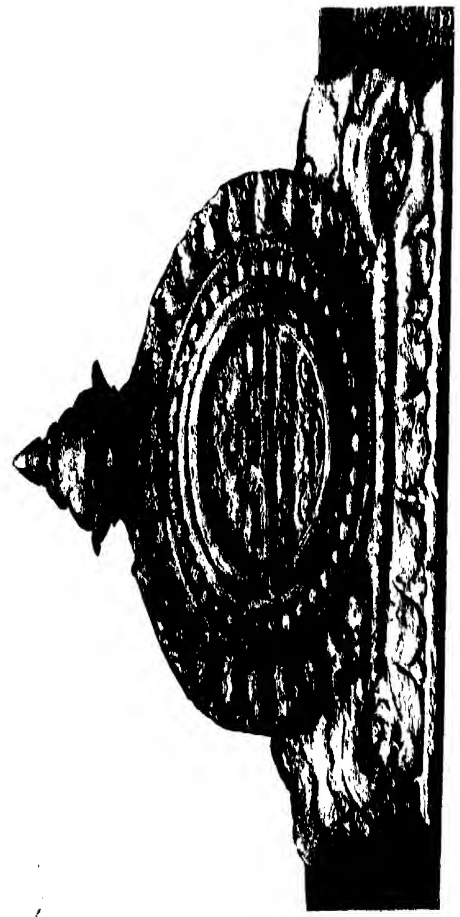
[illegible]

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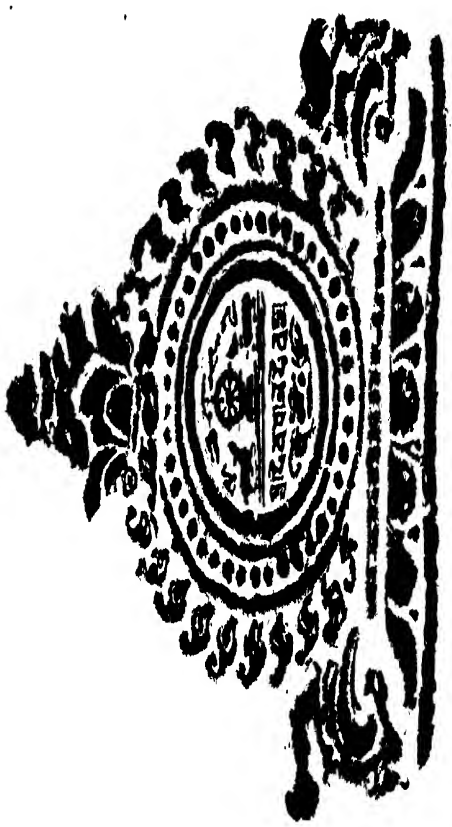
(FROM PHOTO.)

SEAL



HALF SIZE

(FROM IMPRESSION.)



36

समस्तप्रत्यायसमिता भूमिष्ण-
द्वन्धायेनाचन्द्रार्कचितिसमकालम् पूर्वदत्तभुक्तभुज्यमानदेववृ(त्र)क्षदेयवर्जिताः
मया

37

मातापिचोरात्मन[च] पुण्ययशोभिदृष्टये ॥
सुव[र्ण]होपाधिपम[हा]राजश्रीवा(वा)सपुत्रदेवेन दूतकसुखेन वयस्मिन्ना-
पिताः यथा मया

38

श्रीनालन्दायास्मिहारः कारितस्तत्र
भगवतो वु(वु)सभहारकस्य प्रज्ञापारमितादिसकलधर्मनेत्रीस्थानस्वायार्थे तांन(चि)-

39

कवो(बो)धिसत्वगणस्याष्टमहापुरुषपुद्गलस्य
चातुर्हिंशार्थभिक्षुसङ्घस्य व(व)सिचरुसचचोवरपिण्डपातशयनासननक्तानप्रत्ययभे-

40

वज्जात्यर्थ धर्म-
रत्नस्य लीखनात्यर्थ विहारस्य च खण्डकुटितसमाधानार्थ शासनीकृत्य
प्रतिपादित[1*]: यतो भवद्भिः सर्वैरेव

41

भूमेर्दानपाल[न*]गौरवादपहरणे
च महानरकपातादिभयादानमिदमभ्यनुमोक्ष पालनीयं प्रतिवासिभिरध्यान्नाश्र-

42

वणविधेयै-
र्भूत्वा यथाकालं ससुचितभागभोगकरहरिण्यादिप्रत्यायोपनयः कार्य इति ॥
सम्बत् ३८ क(का)र्तिक दिने २१

Reverse.

43

तथाच धर्मानुग्रह'नसन्नोकाः
व(व)दुभिर्वसुधा दत्ता राजभिः

44

सगरादिभिः[1*]
यस्य यस्य यदा भूमिस्तस्य तस्य तदा फलम् ॥[१६॥]

45

सदत्ताम्यरदत्तात्वा [यो] व[र]त वसुधरा ।
स विष्टायां क्षमिर्भूत्वा पितृभिः

46

सह पश्यति ॥[१७*॥]
दक्षिन्वर्षसह[सा]णि स्वर्गे मीदति भूमिदः । चाक्षेता चानुमन्ता च
तान्येव

47

नरके वसेत् ॥[१८*॥]
अन्यदत्तां विजातिभ्यो यत्नादृष्टं बुधिष्ठिर । मर्षी मर्षीकृतां चेष्ट दा-

48

नाञ्ज्यो तु पासनम् ॥[१८*]॥

अस्मत्कुलक्रममुदारमुदा[ह]रन्निरन्ध्रं दानमिदमभ्यनुमोदनीयं । सत्प्रग्राह-
चित्तलिलवुद्बुद[चं]-

49

चलाया

दानं फलं परयशःपरिपालनं च ॥[२०*]॥ इति कमलदलाब्ज(म्बु)वि(वि)-
न्दुलोकां त्रियमनुचिन्त्य मनुष्यजीवितं च [१*] सकलमि-

50

दमुदाहृतं च बु(बु)[ध्वा]

न हि पुरुषैः परकीर्तयो विलोप्याः ॥[२१*]॥ दक्षिणभुज इव रात्रः
परव(ब)लदलने सहायनिरपेक्षः ।[१*]

51

दूत्यं श्रीव(ब)लवर्मा विदधे धर्माधिकारे^१ऽस्मिन् ॥[२२*]॥

अस्मिन् धर्मारम्भे दूत्यं श्रीदेवपालदेवस्य । विदधे श्रीव(ब)लवर्मा
व्याघ्रतटीमण्डलाधिपतिः ॥[२३*]॥

52

आसीदशेषनरपालविलोलमौलि-

मालामणिद्युतिविवो(बो)धितपादपद्मः । शैलेन्द्रवंशतिलको यवभूमिपालः
श्रीवीरवैरिमघना-

53

गुगताभिधानः ॥[२४*]॥

इर्म्यस्थलेषु कुसुमेषु मृणालिनीषु महेन्दुकुन्दतुङ्गिनीषु पदन्दधाना । निःशेष-
दिक्षुखनिरन्तरलम्ब(म्ब)गीतिः

54

मूर्त्तेव यस्य भुवनानि जगाम कीर्तिः ॥[२५*]॥

मूभक्ते भवति नृपा^२स्य यस्य कोपात्रि[भि]न्नाः सङ्घ इदयैर्हिषां
त्रियोपि । वक्राणामि-

55

इ हि परोपघातदक्षा

जायन्ते जगति भूष^३ङ्गतिप्रकाराः ॥[२६*]॥ तस्याभवत्तयपराक्रमशोलमाली
राजेन्द्रमौलिग्रतदुर्लङ्किताङ्घ्रि-

56

युग्मः ।

सूनुयुधिष्ठिरपराशरभीमसेनकर्णार्जुनार्जितयथाः समराग्रवीरः^४ ।[२७*]॥
उद्धूतम^५म्ब(म्ब)रतलाघ(द्यु)धि सञ्चरन्त्या यत्नेनयावनिरजःप-

57

टलं पदोत्थम् ।

कर्णानिलेन करिणां शनकस्वितोरण्णखलीमदलैः शमयाम्ब(म्ब)-
भूव ।[२८*]॥ अक्षयपञ्चमेवेदमभूद्भवनमण्डलं ।

^१ The use of *avagraha* may be marked.

^२ This *ācāṇa* is unnecessary.

^३ Read भूष^०. Symbol for *sh* is used for that of *s*.

^४ Or श्रीवीरः.

^५ It is better to read मात्वर^०

- 58 कुलन्देत्वाधिपस्त्रेव यद्यग्रीभिरनारतम् ॥[२८*]
 पीलोमोव सुतधियस्य निदिता कङ्कस्योनिरिव [सीति:]^१ ग्रीवसुतेव मन्मथरि-
 59 पोङ्गोर्मुरारिरिव ।
 राष्ट्रः सोमकुलान्वयस्य महतः श्रीधर्मसेतोः^२ सुता तस्याभूदवनौभुजोऽग्रमहिनी
 तारिव ताराङ्गया ॥[३०*] माया-
 60 यामिव कामदेवविजयी गुह्योदनस्यात्मजः
 स्कन्दो नन्दितदेवहृन्दहृदयः ग्रन्थोद्गमायामिव । तस्यान्तस्य नरेन्द्रहृन्दवि-
 नमत्पादारवि-
 61 न्दासनः
 सर्वोर्ध्वोपतिगर्भहृन्ध्वजः श्रीवा(वा)सपुत्रोऽभवत् ॥[३१*] नासन्दागुण-
 हृन्दलुब्ध(स्य)भगसा भक्त्या च श्रीचोदनेर्बु(र्बु)ध्वा ग्रीवसरित्तरंगतरङ्गा
 62 लक्ष्मीमिमां श्रीभनाम् ।
 यस्तोमोक्तसौधधामधवलः सङ्गार्थमिचत्रिया नानासङ्गुणभिस्तुसङ्गवसतिस्तस्या-
 म्विहारः कृतः ॥[३२*] भक्त्या
 63 तत्र समस्तयचुवनितावेधव्यदोद्यागुणं
 क्षत्स्य यासनमाहितादरतया यम्प्राप्यं दूतेरसी । यामान् प्रच विपश्चितोपरि-
 यथोद्देशा-
 64 निमानात्मनः
 पित्रो[र्जो]कहितोदयाद्य च वदो श्रीदेवपालं कृपं ॥[३३*] यावत्सिन्धोः
 प्रव(व)न्धः पृथुलहरजटाश्रीभिताङ्गा च गङ्गा गुर्वी
 65 धत्ते फणीन्द्रः प्रतिदिनमचलो हेतया यावदुर्वी ।
 यावत्तास्तीदयाद्री रवितुङ्गचूरोष्ट्रचूडामणो स्तस्यावस्यत्कोर्तिरेषा प्रभव-
 66 तु जगताम्सरिताया रोपयंतो ॥[३४*]

TRANSLATION.

Lines 1-25 are translated in the Mungir grant edited by Kielhorn in *Indian Antiquary*, Vol. XXI, pp. 257-258.

Ll. 26-33. In the Śrinagara-bhukti, at the villages falling within the district (*vishaya*) of Rājagriha, namely, Nandivanāka and Maṇivātaka, which come within the territorial subdivision (*naya*) of Ajapura, together with the undivided lands connected therewith; Natikā which comes within the subdivision (*naya*) of Pilipinkā and Hastigrāma which comes within the

^१ Both these letters are doubtful. Saṅkalpayōni, i.e. Kāmadōva has four wives, as stated in the *Viśvaśāharm-māttariya*, III, 73, 21, namely, Rati, Priti, Sakti and Madasakti. Either of the two names *Priti* and *Sakti* will fit in, but the former seems preferable.

^२ May be read as वर्धसेती also.

^३ The use of the *avagraha* may be marked.

^४ Ditto.

subdivision (*naya*) of Achalā and the village of Pālāmaka which comes under the subdivision (*viśhi*) of Kumudasūtra (or Kumudasānu), that falls within the limits of the district (*viśhaya*) of Gayā—Dēvapālādēva, being in good health, issues commands to all the persons who have assembled here,—the *Rajārāṇaka*¹, the *Rājaputraka*, the *Rajāmātya*, the *Mahākārttikakṛitika*, the *Mahādāṇḍanāyaka*, the *Mahāpratihāra*, the *Mahāsāmanta*, the *Mahādauḥsādhasāadhanika*, the *Mahākumāramātya*, the *Pramātri*, the *Śarabhaṅga*, the *Rajasthāniya*, the *Uparika*, the *Viśhayapati*, the *Dāśaparādhika*, the *Chaurōddharanika*, the *Dāṇḍika*, the *Dāṇḍapātika*, the *Śaulkika*, the *Gaulmika*, the *Kshētrapāla*, the *Kōṭapāla*, the *Khaṇḍaraksha*, the *Tadāyuktuka*, the *Vinīyuktaka*, the *Hastyaśvōshṭṛanaubalavyāpṛitaka*, the *Kiśōra-vaḍavā-gō-mahishydhikṛita*, the *Dātupraishanika*, the *Gamāgamika*, the *Abhitvaramāṇaka*, the *Tarika*, the *Tarapatika*, the *Oḍras* (men from Orissa), the *Mālavas*, the *Khaṭas*, the *Kulikas*, the *Karṇāṭas*, the *Hūnas*, the *Chāṭas* (or village officers), the *Bhaṭas*, the servants and others, dependent on his lotus-feet, who are not named here, and the residents, the Brahmanōttaras, the village-elders, householders, the *purōgas*, the *Mēdas*, the *Andhrakas* down to the *Chāṇḍālas*—

Ll. 33-37. Be it known to you that the above-mentioned villages, namely, the village of Nandivanāka, the village of Maṇivāṭaka, the village of Naṭikā, the village of Hasti (or Hastigrāma) and the village of Pālāmaka, together with the undivided lands attached to them, unbroken up to their boundaries, grass and pasture-lands,² with their grounds, places, mango and *madhūku* (*Bassia Latifolia*) trees, with their water and dry lands, *uparikaras*, *dāśaparādhās*, *chaurōddharanās*, free from all troubles, exempt from the entry of the *chāṭas* (village officers), and *bhaṭas*, with all taxes due to the king's family or court, with nothing of these to be recovered, according to the maxim of *bhūmicchhidra*, to last as long as the moon and the sun and the earth shall endure, excluding the gifts to gods, and the Brahmans, which were granted before and were enjoyed or are being enjoyed—

Ll. 37-42 are granted by us for the increase of the spiritual merit and glory of my parents and of myself—We being requested by the illustrious Mahārāja Bālaputrādēva, the King of Suvarṇpadvīpa through a messenger "I have caused to be built a monastery at Nalanda" granted by this edict toward the income for the blessed Lord Buddha, the abode of all the leading virtues like the *pra jñāpāramitā*, for the offerings, oblations, shelter, garments, alms beds, the requisites of the sick like medicines, etc., of the assembly of the venerable *bhikṣhus* of the four quarters (*comprising*) the Bodhisattvas well versed in the *tantras*, and the eight great holy personages (i. e. the *ariya-puggalas*), for writing the *dharma-ratnas* or Buddhist texts and for the upkeep and repair of the monastery (when) damaged; therefore, this grant should be approved and preserved by all of you⁴ out of regard for the merit of protecting gifts of land and because in the confiscation of the same there is a fear of falling into the great hell and the like. The residents also should be obedient to the order on hearing it and

¹ Many of these designations hardly admit of translation. They all occur in several grants and have already been noticed by scholars. So they are left untranslated here.

² लक्ष्ययुक्तिकम् is usually so translated and युक्ति is practically left untranslated.

³ Dr. Thomas is of opinion that the term Bōdhisattva is used here to indicate the monks and would read *tatraka* in place of *tāntraka*. He further thinks that *Buddhabhāṭṭārakasya* depends on *sthānasya*. The term *dharmanātri* occurs in the *Siddharmapundarikā*, I, 10, 79; II, 102; XI, 5, 7. Burnouf translates it: "la regle de la loi," i. e. the rule of the Law." For *asṭa ... pudgalasya* see Childers, Pāli Dictionary under *ariyapuggalo* and *puggalo*.

⁴ Dr. Krōm of Leiden also thinks that the message sent by Bālaputra to Dēvapāla is only contained in the words: "Śrī-Nālandāyān vihāraḥ Kāritas"; for, if we assume that the message includes the whole passage as far as it (l. 42) it is not clear who are meant by the words *dharmabhiḥ sarvasairēva* (l. 40). These words cannot be applied to King Dēvapāla. Evidently they refer to that king's officials mentioned previously. These remarks appear to be justified but then we would require it after *kāritas*—

should bring to the donees at the proper time the due revenues such as *bhīgabdhōgakara*, gold, etc." *Sāmvat* (year) 39, *Kārttika*, day 21.

Ll. 43-50. In pursuance thereof are the (following) verses (nos. 16-21) announcing duties (regarding grants)¹.

V. 22. The illustrious *Balavarmman* who was the right hand of the king, as it were, and who never depended on (others') help for crushing hostile forces, acted as messenger in this religious function.

V. 23. In this religious undertaking *Balavarmman*, the illustrious ruler of the *Vyāghrataṭi-maṇḍala*, acted as a messenger of the illustrious (Emperor) *Dēvapāladēva*.

V. 24. There was a King of *Yavabhūmi* (or Java), who was the ornament of the *Śailēndra* dynasty, whose lotus-feet bloomed by the lustre of the jewels in the row of trembling diadems on the heads of all the princes, and whose name was conformable to the illustrious tormentor of brave foes (*vīra-vairi-mathana*).

V. 25. His fame, incarnate, as it were, by setting its foot on the regions of (white) palaces, in white water-lilies, in lotus plants, conches, moon, jasmine and snow and, being incessantly sung in all the quarters, pervaded the whole universe.

V. 26. At the time when that king frowned in anger, the fortunes of the enemies also broke down simultaneously with their hearts. Indeed the crooked ones in the world have got ways of moving which are very ingenious in striking others².

V. 27. He had a son, who possessed prudence, prowess, and good conduct, whose two feet fondled too much with hundreds of diadems of mighty kings (bowing down). He was the foremost warrior in battle-fields and his fame was equal to that earned by *Yudhisthira*, *Parāśara*, *Bhīmasēna*, *Karṇa* and *Arjuna*.

V. 28. The multitude of the dust of the earth, raised by the feet of his army, moving in the field of battle, was first blown up to the sky by the wind, produced by the (moving) ears of the elephants, and, then slowly settled down on the earth (*again*) by the ichor, poured forth from the cheeks of the elephants.

V. 29. By the continuous existence of whose fame the world was altogether without the dark fortnight, just like the family of the lord of the *dāityas* (demons) was without the partisanship of *Kṛishṇa*³.

V. 30. As *Paulōmī* was known to be (the wife of) the lord of the *Suras*, (*i.e.* *Indra*) *Ratī*⁴ the wife of the mind-born (Cupid), the daughter of the mountain (*Pārvatī*), of the enemy of Cupid (*i.e.* *Śiva*) and *Lakshmi* of the enemy of *Mura* (*i.e.* *Vishṇu*) so *Tārā* was the queen consort of that king, and was the daughter of the great ruler *Dharmasētu*⁵ of the lunar race and resembled *Tārā* (the Buddhist goddess of this name) herself.

V. 31. As the son of *Śuddhōdana*, (*i.e.* the Buddha) the conqueror of *Kāmadēva*, was born of *Māyā* and *Skanda*, who delighted the heart of the host of gods, was born of *Umā* by *Śiva*, so was born of her by that king, the illustrious *Bālaputra*, who was expert in crushing the pride

¹ Here come six imprecatory and benedictory stanzas, too well-known to be translated. The stanza *सन्निवृत्तौ भाविनः पार्थिवेन्द्रा* which is given in the *Mungir* grant is here left out.

² The eyebrows become crooked in frowning and the poet by way of *arthāntara-vyāsa* draws a general inference from it.

³ Pun on the words *Kṛishṇa* and *pakṣa*. Fame is white or bright cf. *साक्षिन्* योनिं चापि वज्रसि चक्रवर्त्तन भवति *साक्षिणी* *Sāhityadarpana*, VII-23.

⁴ The exact word which certainly has only two letters is not distinct. It may be either *Pṛīti* or *Śakti* as noted above, *f.n.*, p. 324. That *Ratī* is meant is absolutely clear from the context.

⁵ This name can be read as *Varmasētu* also.

of all the rulers of the world, and before whose foot-stool (the seat where his lotus-feet rested) the groups of princes bowed.

V. 32. With the mind attracted by the manifold excellences of Nālandā and through devotion to the son of Śuddhōdana (the Buddha) and having realised that riches was fickle like the waves of a mountain stream, he whose fame was like that of Saṅghārthamitra¹, built there (at Nālandā) a monastery which was the abode of the assembly of monks of various good qualities and was white with the series of stuccoed and lofty dwellings.

V. 33. Having requested, King Dēvapāladēva, who was the preceptor for initiating into widowhood the wives of all the enemies, through envoys, very respectfully and out of devotion and issuing a charter, (he) granted these five villages, whose purpose has been noticed above for the welfare of himself, his parents and the world.

V. 34. As long as there is the continuance of the ocean, or the Ganges has her limbs (the currents of water) agitated by the extensive plaited hair of Hara (Śiva), as long as the immovable king of snakes (Śēsha) lightly bears the heavy and extensive earth every day and as long as the (*Udaya*) Eastern and (*Asta*) Western mountains have their crest jewels scratched by the hoofs of the horses of the Sun so long may this meritorious act, setting up virtues over the world, endure.

No. 18.—MATTEPAD PLATES OF DAMODARAVARMAN.

By PROFESSOR E. HULTZSCH, PH.D.; HALLE (SAALE).

This inscription is engraved on five very thin copper-plates, which were found in the village of Matṭepaḍ in the Ongole Tāluk of the Guṇṭūr District and forwarded to Rao Bahadur H. Krishna Sastri by the Tahsildar of Nellore. The plates measure $6\frac{1}{2}$ inches in breadth and $1\frac{1}{2}$ inches in height. There are eight inscribed faces, the outer faces of the first and last plates having been left blank. Each inscribed face bears only two lines of writing. The margins of the plates are not raised into rims, but the writing is in fair preservation. The five copper-plates are strung on a ring of the same metal, passing through a hole of about $\frac{3}{4}$ " in diameter on the left side of the writing. The two ends of the ring, which is about $2\frac{1}{2}$ " in diameter, are fixed in the base of an oval seal, which is much worn; it seems to bear, in relief, the figure of a seated bull, facing the proper right. The weight of the plates, with ring and seal, is $30\frac{1}{2}$ tolas.

The alphabet is of an early Southern type. The *Jihvāmūṭya* occurs in line 7, and the *Upadhāmāntya* in line 16; final forms of *t* and *m* in lines 1, 7, and 15, 16 (twice), respectively. As in the case of the plates of Chārudēvi (above, Vol. VIII, No. 12) and of Vijaya-Dēvavarman (Vol. IX, No. 7), the eight inscribed faces are numbered consecutively, like the pages of a modern book, with the numerical symbols 2, [3], 4, 5, 6, 7, 8 on the left margin; the first plate seems to bear, just as that of Dēvavarman,² the sacred syllable *ōm* in the place of the figure 1. The symbol 2 occurs also in the date (l. 14), and the symbol 1 repeatedly in lines 8-13.

The language of the plates is Sanskrit mixed with Prakṛit. Lines 1-14 are in prose, and the two last lines in verse. In the Sanskrit portion consonants following *r* are doubled, with the exception of *t* in *kartum*= and of *h* in *arhanti* (l. 6). The Sandhi is neglected after °*purāt* (l. 1), °*tasya* and °*sagōṭrasya* (l. 2), -*grāmāyakaḥ* (l. 4), -*grāmaḥ* (l. 5), and *bhūmiḥ* (l. 15).

¹ This might possibly mean that his wealth befriended the cause of the Saṅgha.

² See above, Vol. IX, p. 57.

In lines 8-13 the proper names of the donees and most of the names of their *gōtras*¹ are given in Prākṛit, and in line 14 the Prākṛit form *-sambachchharan* occurs. The only other declensional forms are the nominative singular *amso* (for which we would have expected *amso*) and the genitive singular *-ajassa* (= *-āryasya* in Sanskrit) in lines 8-13. The vowel *ae* has become *o* in *Konḍinna* (= *Kaṇḍinya*, ll. 8-11). Sanskrit *p* and *b* have been changed to *v* in *Kassava* (= *Kāśyapa*, l. 11 f.) and *Savarajja* (= *Śabarārya*, l. 10). Consonant groups are assimilated; but *īri* is represented by *siri* in *Sirijja* (l. 9). This name, as well as *Nandijja*² (= *Nandyārya*, ll. 8, 13), *Aggijja* (= *Agnīārya*, ll. 9, 11), *Agasti* (= *Agastya*, l. 13), and *Veṇujja* (for which we would have expected *Veṇhujja*³ = *Vishṇvārya*, l. 12), are instances of *Saṃprasāraṇa* (*i* = *ya*, and *u* = *va*).

The inscription records that, in the 2nd year of his reign (l. 14), the Mahārāja Dāmōdaravarman (l. 3) granted the village of Kaṅgūra to a number of Brāhmaṇas. He was a worshipper of 'the truly and perfectly Enlightened one' (*Samyak-sambuddha*, l. 1), i.e. of the Buddha. At the same time he boasts of having performed certain Brāhmanical rites, viz. *Gō-sahasra* and *Hiranyagarbha* (l. 2 f.). These are the names of the second and fifth of the sixteen so-called 'great gifts' (*mahādāna*) of the Purāṇas.⁴ A similar feat is ascribed to king Attivarman in another copper-plate grant from the Guṇṭūr District, where I translate the epithet *apramēya-Hiranyagarbha-prasavēna*⁵ by 'who is a producer of (i.e. who has performed) innumerable *Hiranyagarbhas*.' That this Attivarman (whose name seems to be a Prākṛitic or Dravidian form of *Hastivarman*) belonged to the same dynasty as Dāmōdaravarman, is evident from the fact that his family is stated to be 'descended from the lineage of the great sage Ānanda' (ibid., text l. 1), while Dāmōdaravarman claims to have belonged to the *gōtra* of Ānanda (below, text l. 2). Moreover, Dāmōdaravarman resided at a city called Kandarapura (below, text l. 1), which must have received its name from that prince Kandarā who is mentioned as an ancestor of Attivarman.⁶ The characters of the copper-plate grant of this king are decidedly more developed than those of the subjoined grant, which, besides, is partially in Prākṛit, while the former is all in Sanskrit. Consequently, Dāmōdaravarman must have been one of the predecessors of Attivarman.

When editing the Gōraṇṭla plates of Attivarman, my late lamented friend Fleet believed this king to have been a Pallava,⁷—chiefly because he interpreted the epithet *apramēya-Hiranyagarbha-prasavēna* by 'who is of the posterity of the inscrutable (god) Hiranyagarbha.' As I have shown above, this rendering is inadmissible in the light of the corresponding epithet used in the fresh plates, and Fleet himself had since withdrawn his original opinion in his *Dynasties of the Kanarese Districts*, second edition, p. 334. Henceforth Kandarā, Dāmōdaravarman, and Attivarman (Hastivarman) may be designated as 'kings of the family of Ānanda.'

The two localities mentioned in the subjoined inscription—Kandarapura (l. 1) and Kaṅgūra (l. 4 f.)—I am unable to identify. But the first of the two villages referred to in the grant of Attivarman—Tāṇṛikonṛa⁸—is probably identical with Tāḍikonḍa, 10 miles north of Guṇṭūr⁹ and south of the Kṛishṇā river, and the second village—Āntukkūra¹⁰—with Gani-Ātukūru, west

¹ In line 13 the names of the *gōtras* are in Sanskrit.

² Cf. *Nandijja* and *Gonandijja*, above, Vol. I, p. 6, text l. 21, and Vol. VI, p. 97, text l. 9.

³ Cf. *Rudavennhujja*, above, Vol. VI, p. 317, text l. 16.

⁴ See Hēmadri's *Lāṇakāṇḍa*, chapter 5, and cf. also *Ep. Ind.*, Vol. I, p. 368, verse 18 and note 58.

⁵ *Ind. Ant.*, Vol. IX, p. 102, text l. 3.

⁶ Loc. cit., text l. 2. These coincidences were first pointed out in the Madras Epigraphical Report for 1920,

p. 95.

⁷ See *Ind. Ant.*, Vol. IX, p. 102.

⁸ See Mr. R. Sewell's *Lists*, Vol. I, p. 76.

⁹ *Ind. Ant.*, Vol. IX, p. 103, text l. 8.

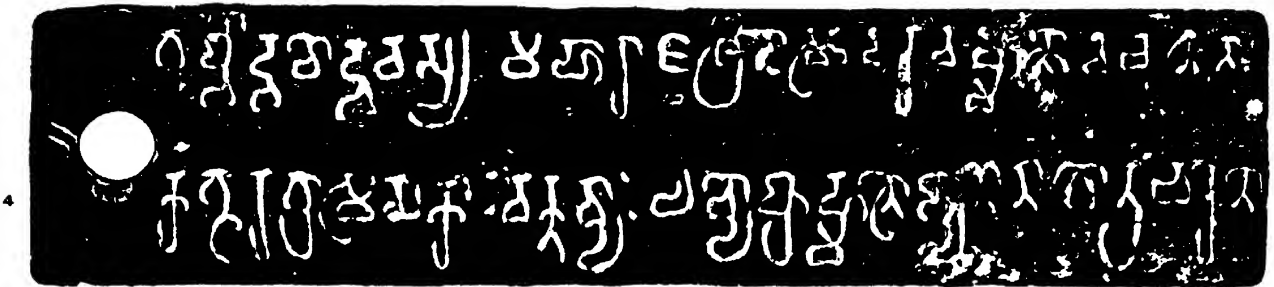
¹⁰ *Ind. Ant.*, Vol. IX, p. 103, text l. 7. Fleet read *Tāṇṛikonṛa*.

Mattepad Plates of Damodaravarman.

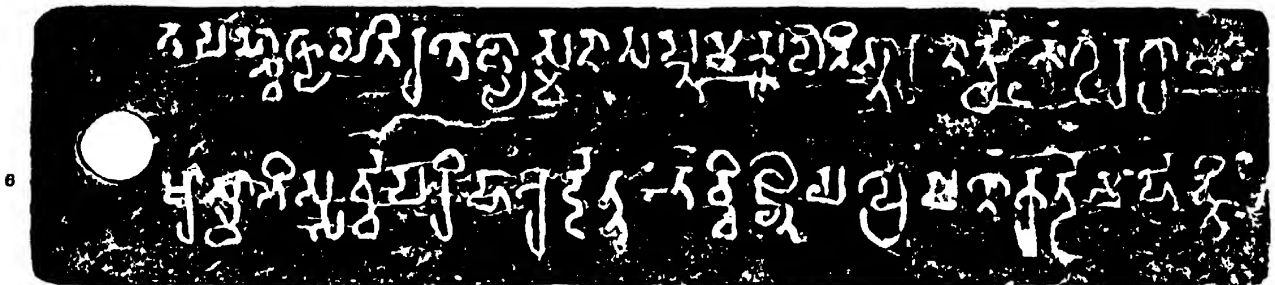
i.



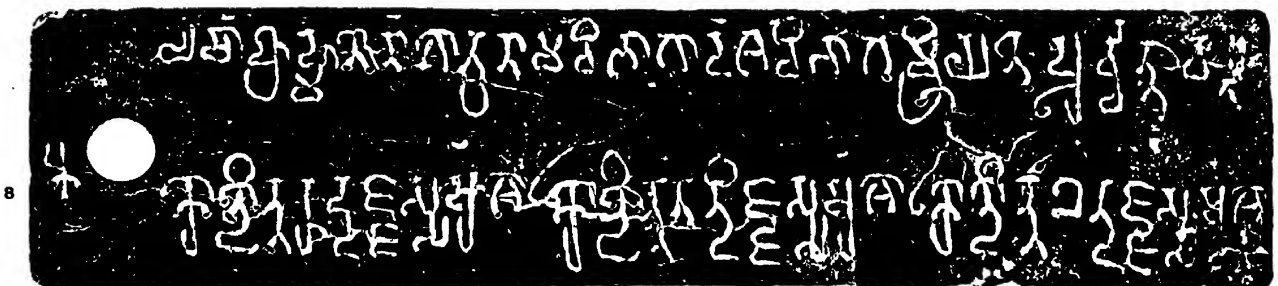
ii a.



ii b.



iii a.



iii b.

10 10
10 10
10 10

iv a.

12 12
12 12
12 12

iv b

14 14
14 14
14 14

v.

16 16
16 16
16 16

of Bezvāḍa.¹ Gōraṇṭla, where the plates of Attivarman were obtained,² is 4 miles north of Guṇṭūr.³ Finally, Venkayya's Report for 1900, pp. 5, 35, notes a much defaced Sanskrit inscription mentioning the daughter of king Kandara of the Ānanda gōtra, at Chēzārī, west of Guṇṭūr.

TEXT.⁴*First Plate; Second Side.*

- 1 विजयकन्दरपुरात् [अ]श्वतः सस्यकस्तुभस्य पाहानुभा-
- 2 तस्य चा[न]न्दसगोत्रस्य अ[वन्ध]गोसह[साने]कहिरस्य-

Second Plate; First Side.

- 3 गम्भीरवोद्वस्य महाराजश्रीदामोदरवर्धनो वचनेन
- 4 कंगूरयामियका(ः) वक्तव्याः [1*] एभ्यो ब्राह्मणे[भ्यो] नानागोत्रचरण-

Second Plate; Second Side.

- 5 तपस्त्राध्यायनिरतेभ्योस्मदाससमकुलनिस्तारण[1*]र्थ कंगूरयामः
- 6 अस्माभिस्सर्वपरिहारैर्हन्तः [1] तंविज्जाय⁵ मे[व]चं कर्तुमर्हन्ति [1]

Third Plate; First Side.

- 7 एषां ब्राह्मणानां गोत्रनामविभागादंशविभागद्वयते [1*] पूर्वस्तावत्
- 8 कोण्डिवरद्वयस्य अंशो १ कोण्डिवनन्दस्य अंशो १ कोण्डिवस्य अंशो

Third Plate; Second Side.

- 9 कोण्डिवभवस्य अंशो १ कोण्डिवभगिनस्य अंशो १ कोण्डिवसिरि-
जस्य अंशो
- 10 पुनः कोण्डिवभवस्य अंशो १ कोण्डिवस्य अंशो १ कोण्डिव-
सवरस्य अंशो

Fourth Plate; First Side.

- 11 कोण्डिवभगिनस्य अंशो १ कोण्डिववीरस्य अंशो १ कस्यवदामस्य
[अंशो]
- 12 कस्यवकुमारस्य अंशो १ कस्यवदेणुस्य अंशो १ कस्य[वदे]वस्य
अंशो

¹ See above, Vol. VIII, p. 10.

² Ind. Ant., Vol. IX, p. 102.

³ Mr. Sewell's Lists, Vol. I, p. 74.

⁴ From ink-impressions supplied by Rao Bahadur H. Krishna Sastri.

⁵ Read तविज्जाय.

Fourth Plate ; Second Side.

- 13 काश्यपनन्दिकास्य चण्डो १ वत्सदोणकास्य चण्डो चागस्तिभङ्गकास्य
चण्डो १^१ [1*]
14 विजयसंवत्सरं २ कार्तिकशुक्लपक्षस्य चण्डोदस्यां पट्टिका दत्ता [1*]

Fifth Plate ; First Side.

- 15 बहुभिर्बुधैः दत्ता बहुभिश्चानुपालिता [1*] यस्य यस्य यदा भूमिः^२
तस्य तस्य तदा फलम् ॥
16 स्वदत्तां परदत्तां वा यो हरेत्तु वसुधराम् [1] गवां गतसङ्ख्यस्य
हन्तुः पिबति दुष्कृतम् ॥

TRANSLATION.

(Line 1.) From Kanderapura, (the city) of victory, the villagers of Kaṅgūra have to be addressed (as follows) by the word of the glorious Mahārāja Dāmōdaravarmaṇ, who meditates on the feet of the blessed Samyak-sambuddha; who belongs to the *gōtra* of Ānanda; (and) who is the origin of the production (i.e. who has caused the performance) of many *Hiraṇyagarbhas*⁴ and of (gifts of) thousands of pregnant cows.

(L. 4.) 'For the saka of Our salvation as far as the seventh generation, the village of Kaṅgūra has been given by Us, with all exemptions, to the following Brāhmanas of various *gōtras* and *charaṇas*, and practising austerities and recital of their sacred texts. Knowing this (the villagers) should render service (to them).'

(L. 7.) The allotment of shares is (now) made to these Brāhmanas, with specification of (their) *gōtras* and names. First then, to the Koṇḍinna Rudḍajja (Rudrārya) 1 share; to the Koṇḍinna Nandijja (Nandārya) 1 share; to the Koṇḍinna Khandajja (Skandārya) (1) share; to the Koṇḍinna Bhavajja (Bhavārya) 1 share; to the Koṇḍinna Aggijja (Agnārya) 1 share; to the Koṇḍinna Sirijja (Śryārya) (1) share; again to the Koṇḍinna Bhavajja 1 share; to the Koṇḍinna Khandajja 1 share; to the Koṇḍinna Savarajja (Śabarārya) (1) share; to the Koṇḍinna Aggijja 1 share; to the Koṇḍinna Virajja (Virārya) 1 share; to the Kassava Dāmajja (Dāmārya) (1) share; to the Kassava Kumārjja (Kumārārya) 1 share; to the Kassava Venujja (Vishuvārya) 1 share; to the Kassava Devajja (Dēvārya) (1) share; to the Kaśyapa Nandijja 1 share; to the Vatsa Dopajja (Drōpārya) 1 share; to the Āgasti Bhaddajja (Bhadrārya) 1 share.

(L. 14.) (In) the year of victory 2, on the thirteenth (tithi) of the bright fortnight of Kārttika, (this) set of plates⁵ has been given (to the donees).

[Line 15 f. contain two of the customary ślokas.]

No. 19.—URLAM PLATES OF HASTIVARMAN; THE YEAR 80.

By PROFESSOR E. HULTZSCH, PH.D.; HALLE (SAALE).

This is a set of three copper-plates, measuring 7½ inches in breadth and 2½ inches in height. The outer face of the first plate has been left blank, while the second and third plates

¹ चण्डो १ is entered below the line.

² Read भूमिः.

³ Read भूमिः.

⁴ See the introductory remarks.

⁵ *paṭṭikā* is used in the same sense in other copper-plate grants. See above, Vol. I, p. 7, text l. 51; Vol. VI, p. 14 text l. 18; p. 88, text l. 28; p. 318, text l. 40; Vol. VIII, p. 340, text l. 40.

bear writing on both sides. The margins of the plates are not raised into rims, but the writing is in good preservation. The plates are strung on a copper ring, which is passed through a hole about $\frac{1}{2}$ " in diameter near the left margin of the writing. The ring is about 3" in diameter and now carries no seal; but there are clear traces of a seal having once been soldered on it. The weight of the plates, with the ring, is 42 tolas.

The plates were received by Rao Bahadur H. Krishna Sastri from Mr. K. Nagesvara Rao, Editor of the 'Andhra Patrika,' who stated that they are the private property of the Raja of Urlām, Chicacole taluk, Ganjam District. Mr. T. Rajagopala Rao has already published the text of the inscription on them in his journal 'South-Indian Research' for July 1919.

* The alphabet is of an early Southern type and closely resembles that of the Achyutapuram plates of the Gāṅga Mahārāja Indravarman I of Kalinga,¹ which were drafted by the same officer as the Urlām plates. A final form of *m* occurs at the end of the inscription, while it is replaced by *Anusvāra* in *phalaṁ* (l. 20) and *°pālanam* (l. 21). The two numerical symbols 8 and 80 are used in the date (l. 23), where 80 is expressed by the numerical symbol 80 and a superfluous cipher added to it.

The language is Sanskrit, prose and five verses (ll. 19-22, 23-26). As to orthography—*v* is used for *b* in *°vādhā* (l. 14). The syllable *ri* is replaced by the vowel *ri* in the second syllable of *kṛitrimā* (l. 17). *Anusvāra* is represented by guttural *ṁ* in *Rājasinḥasya* (l. 24) and *-saṅghatēḥ* (for *-saṁghatēḥ*, l. 25). Consonants are doubled after *r*, with the exception of *śh* (in *varsha-*, l. 2); and *dh* is doubled before *y* in *-ānuddhyātāḥ* (l. 7). The *sandhi* is neglected after *-yāśāḥ* (l. 5), *-smābhīḥ* (l. 9), *°vriddhayā* (l. 11), *-simāntikā* and *valmikaḥ* (l. 16), and wrongly made in *-vāpyā* (l. 15) and *tatō* (l. 18).

The inscription records the grant of a piece of land at the village of Hoṇḍevaka in Kṛśṇuka-vartanī (l. 8) as an *agrahāra* to Jayaśarman, a resident of Uṛāmalla (l. 12). This land had been purchased from the residents of the *agrahāra* (of Hoṇḍevaka) by the grantor—the Mahārāja Hastivarman (l. 8) of Kalinga (l. 4), who belonged to the Gāṅga family (l. 5 f.) and resided at Kalīṅganagara (l. 1). This king receives exactly the same panegyric epithets as are applied to Indravarman I at the beginning of his two published grants.² The date of Hastivarman's grant was the year 80 (in words and figures) of the reign (l. 23), while Indravarman's grants are dated in the years 87 and 91 of the reign. For this reason, and because all the three grants were drafted by the same officer, Hastivarman must have been the predecessor of Indravarman I, and the 'years of the reign' cannot possibly have been those of two individual reigns, but must be referred to the Gāṅga or Gāṅgōya era, whose earliest known date is now that of Hastivarman's record. The day of the grant was 'the eighth (tithi) of the dark (fortnight) of Kārttika' (all in words, l. 13) or 'the day 8 of Kārttika' (l. 23).

The officer who wrote the grant of Hastivarman and the two grants of Indravarman I, was Vinayachandra, son of Bhānuchandra. In the verse which contains his name,³ he calls his sovereign Rājasinḥa, which, accordingly, must have been a *biruda* both of Hastivarman and of his successor Indravarman I. According to verse 5, Hastivarman had the additional surname Rāpabhīta. The same curious expression, which at first sight does not look very complimentary, but may have to be understood in a moral sense, occurs in two copper-plate grants as the name of a member of the dynasty of Śailōdbhava; see verse 6 of the Buguḍa plates, above, Vol. III, p. 43, and of the Pārikud plates, Vol. XI, p. 284.

The subjoined grant does not mention the name of its engraver; but I use this opportunity for again drawing attention to an error which dies hard, and crops up once more in the transla-

¹ Above, Vol. III, p. 127 ff.

² See the preceding note, and the Parā-Kimeḍi plates, *Ind. Ant.*, Vol. XVI, p. 134.

³ Verse 4 of the subjoined grant is identical with line 23 f. of the Achyutapuram plates, and with line 19 f. of the Parā-Kimeḍi plates, of Indravarman I.

tion of a Gāṅga grant in Vol. XIII, p. 216. As I have shown in Vol. VII, p. 107, note 4, *akhaśali*, the person to whom the engraving of copper-plate grants is entrusted, means 'a goldsmith,'¹ and must not be confounded with *akshapaṭālīka*, 'a keeper of records.'

Of the localities mentioned in this inscription, *Kaliṅganagara* (l. 1) is the present *Mukhalīgam*,² and *Urāmalla*, where the donee resided (l. 12), is *Urlām*³ where the copper-plates were obtained. In the absence of local maps, I am unable to identify the village granted, *Hoṇḍevaka* (l. 8), and another village, *Hattaravanna*, which seems to be referred to in the description of the boundaries of the former (l. 16). The district of *Krōṣṭuka-vartanī* (l. 8) occurs also in the *Chicacole* plates of *Dēvēndravarmān*.⁴

TEXT.⁵

First Plate ; Second Side.

- 1 श्री⁶ स्वस्ति [1*] सर्व्वसुखरमणीयाद्विजयकलिङ्गनगरात्कलभुवननिर्माणेक-
- 2 सूत्रधारस्य भगवतो 'गोकर्ण'स्वामिनश्चरणकमलयुगलप्रणामादपगत-
- 3 कलिकलहो विनयनयसम्पदामाधारः स्वासिधारापरिस्पन्दाधिग-
- 4 तसकलकलिङ्गाधिराज्यसुतुदधितरङ्गमेखलावनितलप्रवि-
- 5 ततामलयशा(ः) चनेकसमरसंघोभजनितजयशब्दो⁷ गाङ्गा-
- 6 मलकुलप्रतिष्ठः प्रतापातिशयानामितसमस्तसामन्तचूडा-

Second Plate ; First Side.

- 7 मणिप्रभामञ्जरोपुष्करञ्चितचरणो मातापितृपादानुज्ज्ञातः परम-
- 8 माहेस्वरः श्रीमहाराजो इस्तिवर्मा (1)⁸ क्रोष्टुकवर्त्तन्या होण्डेवकग्रामे स-
- 9 र्व्वसमवेताङ्कुटुम्बिनस्समाज्ञापयति [1*] विदितमस्तु वो यथाज्ञाभि[ः]⁹
- 10 अस्मिन्ग्रामेप्रहारिकसकाशात्कीत्वा द्दहर्द्दहस्य भूम्हेदीकत्याचन्द्रार्क-
- 11 प्रतिष्ठमग्रहारङ्कृत्वा सर्व्वकरैः परिहृत्य मातापित्रोरात्मनश्च पुण्यामिदृश्ये¹⁰
- 12 उरामल्लनिवासिने वत्ससगोत्राय वाजसनेयसन्नञ्चचारिणे ज[य]-

Second Plate ; Second Side.

- 13 शर्मणे कार्त्तिककृष्णाष्टम्यामुदकपूर्व्वं संप्रप्ता [1*] तद्विदित्वा स्वभूमिमनुपाल-
- 14 यतां न केनचित्परिवाधा¹¹ कार्य्येति । सीमासिद्धानि चाच [1*]

पूर्व्वेण वत्सोक्तस्ततः

¹ Cf. '*agasāli*, *agasālāvāḍu* or *agasālevāḍu*, a goldsmith,' in Brown's *Telugu-English Dictionary*.

² See above, Vol. IV, p. 187 ff.

³ This identification was suggested in the *Madras Epigraphical Report* for 1920, p. 96.

⁴ Above, Vol. III, p. 131.

⁵ From ink-impressions supplied by Rao Bahadur H. Krishna Sastri.

⁶ Expressed by a symbol.

⁷ Read गोकर्ण^०.

⁸ Read 'संघोभ'.

⁹ Read 'वत्स'.

¹⁰ Read यथाज्ञाधिर्कि^०

¹¹ Read 'वाधा'.

i.

[illegible] $\ddot{u} a.$

8
 10
 12

8
 10
 12

ii b.

14
 16
 18

14
 16
 18

20
 22
 24

20
 22
 24

20
 22
 24

26

26

- 15 चेचपाली ततो घोषणवाप्या[:*] पश्चिमपाली ततः पुनरपि चेच-
पाली [1*]
16 दक्षिणेन उत्तरवक्त्रसीमान्तिका एव¹ [1*] पश्चिमेन चेचपाली ततो
वल्लीकः²
17 ततः कृतुमा³ पाषाणपङ्क्तिः [1*] उत्तरेणापि चेचपाली ततो वल्लीकः
पुनर्वल्लीकः³
18 ततो⁴ पूर्ववल्लीकमनुप्राप्तेति । भविष्यद्राजभिषायन्दानधर्मीनुपालनीयः [1*]

Third Plate ; First Side.

- 19 तथा च व्यासगीताः [1*] बहुभिर्व्यसुधा दत्ता बहुभिषानुपालिता [1*]
यस्य यस्य
20 यदा भूमिस्तस्य तस्य तदा फलं [॥ १*] स्वदत्ताभ्यरदत्ता वा यद्वाद्रव्य
युधिष्ठिर [1*] मही⁵
21 महिमतां श्रेष्ठ दानाश्चेत्यनुपालनं [॥ २*] षष्टिं वर्षसहस्राणि मोदते दिवि
22 भूमिदः [1*] आचक्षते चानुमन्ता च तान्येव नरको वसेदिति । [१*]
प्रवर्धमानविजय-
23 राज्यसंवत्सरा अशीतिः ८० कार्तिकदिन ८ ॥ इदं विनयचन्द्रेण भानु-
24 चन्द्रस्य सूनुना [1*] शासनं राजसिङ्घस्य⁶ लिखितं स्वमुखाग्रया ॥ [४*]

Third Plate ; Second Side.

- 25 मण्डलाग्रायनिषेधनिषिष्टारातिसङ्कतेः⁷ [1*]
26 ओमतीप्रतिघातस्य रणभीतस्य शासनम् ॥

TRANSLATION.

(Line 1.) Ōm. Hail! From Kalinganagara, (the city) of victory, which is pleasant (on account of the simultaneous presence) of the comforts of all seasons, the glorious Mahārāja Hastivarman, a fervent worshipper of Mahēśvara, who meditates on the feet of (his) mother and father,⁸ commands (as follows) the ryots, accompanied by all (others), at the village of Hoṇḍevaka in (the district of) Krōṣṭuka-vartanī.

(L. 9.) 'Be it known to you that We have purchased two and a half ploughs (*hala*) of land in this village from the *Agrahārikas*,⁹ have constituted (this land a separate) section.

¹ Read सीमान्तिकेव.² Read कृतुमा.³ Read मही.⁴ Read ० संकतेः.⁵ The epithets omitted here will be found translated above, Vol. III, p. 120.⁶ i.e. the residents of the *agrahāra*.⁷ Read वल्लीकस्तः.⁸ Read कस्तः.⁹ Read सिङ्घस्य.

have made (it) an *agrahāra* which is to last as long as the moon and the sun, have exempted (it) from all taxes, and that, for the sake of the increase of the religious merit of (Our) mother and father and of Ourselves, on the eighth (tithi) of the dark (fortnight) of Kārttika, with libations of water, We have given it to Jayasārman, who resides at Urāmalla, belongs to the Vatsa *gōtra*, (and) studies the Vājasanēya (*śākhā*). Knowing this, nobody should cause obstruction to (the new owners) while they are preserving their own land.¹

(L. 14.) And the marks of the boundaries of this (land are): In the east, an anthill; then the bank (*pālī*) of a field; then the western bank of the *Ghōṣhaṇa* tank; and then again the bank of a field. In the south, only the boundary of Hattaravanna. In the west, the bank of a field; then an anthill; then an artificial row of stones. And in the north, the bank of a field; then an anthill; again an anthill; then (the boundary) reaches the anthill in the east.

(L. 18.) And future kings should preserve this meritorious gift. There are also the following (verses) sung by Vyāsa.

[Lines 19-22 contain three of the customary Ślokas.]

(L. 22.) Eighty—(in figures) 80—years of the reign of increasing victory, the day 8 of Kārttika.

(Verse 4.) At the command of his (the king's) own mouth, this edict of Rājasiṃha has been written by Vinayachandra, son of Bhānuchandra.

(V. 5.) (This is) an edict of the glorious Rājabhīṣa, whose orders are irresistible, (and) who has crushed the collection of (his) enemies by the strokes of the point of (his) scimitar.

No. 20.—IPUR PLATES OF GOVINDAVARMAN'S SON MADHAVAVARMAN.

By PROFESSOR E. HULTZSCH, PH.D., HALLE (SAALE).

This is a set of three thin copper-plates in the possession of Brindavanam Gopalachari at the village of Ipūr in the Tenāli Tāluk of the Guṇṭūr District, which was brought to the notice of Rao Bahadur H. Krishna Sastri by Mr. A. Rangasvami Sarasvati. The plates measure $6\frac{1}{2}$ inches in breadth and $1\frac{1}{2}$ inches in height. The outer faces of the first and last plates have been left blank, while the middle one bears writing on both sides. The margins of the plates are not raised into rims, but the writing is in good preservation. The plates are strung on a copper ring, which is 3" in diameter and is passed through a hole on the left side of the writing. The two ends of the ring are secured in the base of a circular seal, which measures $1\frac{1}{2}$ " in diameter and is somewhat worn. It is divided by a cross-line into two sections. The lower section bears, in relief, the legend श्रीमद्विष्णु in two lines. Above the line seems to be a figure of Lakshmi or a Svastika on a pedestal, flanked by two lamp-stands and surmounted by the sun (?) and the crescent of the moon. The weight of the plates, with ring and seal, is 80 tolas.

The alphabet is of an earlier southern type than that of the two other published grants of the Vishnukunḍin family². The secondary forms of *i* and *ṣ* are not always clearly distin-

¹ Cf. the corresponding portion of the Achyutapuram plates, above, Vol. III, p. 129.

² These are the Rāmatīrtham plates of Indravarman, above, Vol. XII, p. 138, and the Chikṣulla plate Vikramādityavarman II, Vol. IV, p. 138.

Ipur Plates of Govindavarman's Son Madhavavarman.

i.

2
4
2
4

ii a.

6
8
6
8

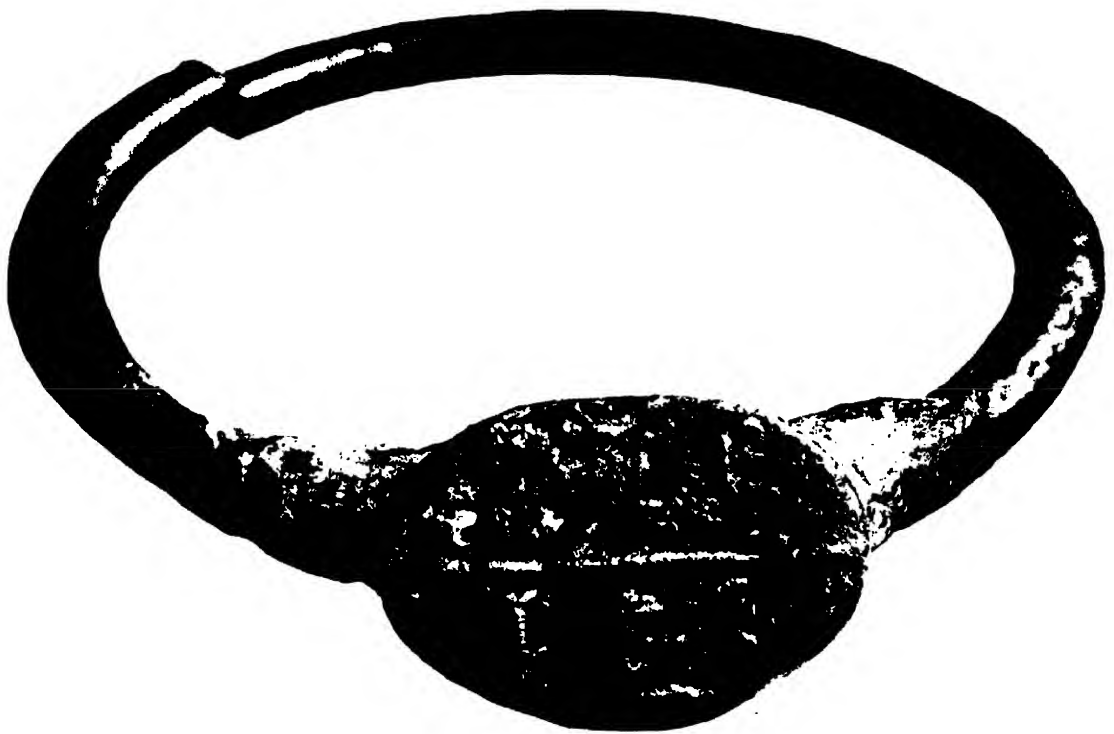
ii b.

10
10

iii.

12
14
12
14

Seal



FULL SIZE

guished; in *kuṇḍināṃ* = (l. 1) *i* looks like *ś*, and in *bhagavach-Chhriparuvata* (l. 1), *śrī-Gōvinda*^o (l. 3), and *-maht* (l. 4), *ś* looks like *i*; *i* is distinguished from *n* by a loop on the left: but in *-janīn* = (l. 9) the second *n* has a loop, and in *-jagat-kalmashaḥ* (l. 7) and *-sahvatsarē* (l. 14) the *i* has no loop. Final forms of *m* and *t* occur in *-arttham* (l. 10), *rasundharām* and *vrajēt* (l. 13). The numerical symbols 5, 7, and 10 are used in the date (l. 14).

The language is Sanskrit prose (with two verses quoted in l. 12 f.), but the abbreviation *gi* (l. 14) presupposes the Prākṛit word *gīṃha* (= *grīṣma* in Sanskṛit). The incorrect form *saptātrīsē*, (for *saptatrinśē*, l. 14) seems also to be due to Prākṛit influence. Palatal *ñ* is expressed by lingual *n* in *Mañchyanna* (l. 11). Consonants are doubled after *r* throughout, and *dh* before *y* in *-ānuddhyātasya* (l. 1), while *tva* represents *ttva* in *-satva* (ll. 3, 6). As the notes on the text will show, the rules of *sandhi* are frequently disregarded.

The inscription records the grant of the village of Vilembali in the Guddādi-vishaya (l. 8 f.) to the Brāhmaṇa Agnīśarma. The grantor was the Mahārāja Mādhavavarman (l. 8), son of the Mahārāja Gōvindavarman (l. 8), who was a worshipper of the temple at Śrīparvatī and belonged to the family of the Viṣṇukunḍins (l. 1). Mādhavavarman issued his order to the villagers from his camp at Kuḍāvāḍa (l. 8) and seems to have resided at Trivaranagara (l. 4). The executor (*ajñā*) of the grant was (the king's) 'dear son,' Mañchyanna-bhaṭṭāraka (l. 11). Its date was the 15th day of the 7th fortnight of the hot season in the thirty-seventh year of the reign (l. 14).

In consideration of the comparatively early type of the alphabet of this inscription, I feel tempted to identify Mādhavavarman with a king of the same name, who is known to have been the grandfather of the grantor of the Rāmatīrtham plates, and the great-grandfather of the grantor of the Chikkulla plates.¹ For easy reference, I subjoin a tabular statement.

| <i>Ipūr plates.</i> | <i>Rāmatīrtham plates.</i> | <i>Chikkulla plates.</i> |
|--------------------------|----------------------------|------------------------------------|
| Gōvindavarman. | | |
| | | |
| Mādhavavarman (year 37). | Mādhavavarman. | Mādhavavarman. |
| | | |
| | Vikramēndra. | Vikramēndravarmān I. |
| | | |
| | Indravarman (year 27). | Indrabhaṭṭārakavarman. |
| | | |
| | | Vikramēndravarmān II
(year 10). |

Of the localities mentioned in this inscription, Śrīparvatā (l. 1) is perhaps identical with Śrīśailam in the Karpāl District.² Whether the Guddādi-vishaya (l. 8 f.) has anything to do with the Guddavādi-vishaya to which Drākshārāma and Chellūr in the Gōḍāvarī District belonged,³ I am unable to say, nor can I identify Vilembali (l. 9), Kuḍāvāḍa (l. 8), and Trivaranagara (l. 4), which can hardly be identical with the distant Tripurī (Tewar).

¹ See my remarks above, Vol. XII, p. 138, and cf. the Madras Epigraphical Report for 1920, p. 99.

² See above, Vol. IV, p. 195.

³ See above, Vol. IV, p. 83; *Ind. Ant.*, Vol. XIV, p. 52, text l. 77; Vol. XIX, p. 424.

TEXT.¹*First Plate ; Second Side.*

- 1 खस्ति [१*] भगवच्छोपर्व्यतस्त्रामिपादानुज्यातस्य विष्णुकुण्डिनामपरिमितबल-
पराक्रमस्य
2 परमधार्मिकस्य प्रणतसकलसामन्तस्यानेकगोहिरण्यभूमिप्रदानस्य महाराजस्य
3 श्रीगोविन्दवर्मणः पुत्रः स्मृतिमतिबलसत्त्वधैर्यैर्वीर्यविनयसंपन्नः²
4 सकलमहोमण्ड[ल]म[नु]जपति[प्र]तिपूजितशासनः³ त्रिवरनगरभवनगतयुव-

Second Plate ; First Side.

- 5 तिहृदयनन्दनः 'स्व[न]यबलं विजितसकलसामन्तातुलबलविनयनयनिय-
6 मसत्त्वसंपन्नः⁴ सकलजगदवनिपतिप्रतिपूजितशासनः⁵ अग्निष्टोमसहस्रया-
7 जो हि[र*]ण्यगर्भप्रसूतः⁶ एकादशाश्वमेधावभृथविधूतजगत्कल्मषः सुस्तिर-⁷
8 कर्म[र] महाराजश्रीमाधववर्मा विजयस्कन्धावारा[त्*] कुडावाडवासक-⁸
गुहादिविष-

Second Plate ; Second Side.

- 9 ये विलिखलिग्रामजनान्सर्वानेवम[१*]ज्ञापयति यथा¹⁰ अस्मै वत्सगोत्राय
ब्राह्मणी-
10 य¹¹ अग्निशर्मणे अस्मदंशविभूत्यर्थम्¹² सर्वपरिहारण दत्तवानस्मि [१*]
तदवगम्य सर्व-
11 राजपुरुषैः परिहर्तव्यः पालयितव्यश्च [१*] अस्याज्ञा प्रियपुत्रः¹³ मण्यच्छण-
भट्टारकः [१*]

Third Plate ; First Side.

- 12 बहुभिर्वसुधा दत्ता बहुभिश्चानुपालिता [१*] यस्य यस्य यदा भूमिस्तस्य तस्य
तदा फ-

¹ From ink-impressions supplied by Rao Bahadur H. Krishna Sastri.² Read 'सत्त्व'.³ Perhaps स्वभुजबल° is intended. Read 'सामन्ती ऽनुज'.⁴ Read 'सत्त्वसंपन्नः'.⁵ Read 'प्रसूतिरिकादशा'.⁶ Read 'वासकाङ्गहारि'.⁷ Read 'ब्राह्मणायापिशर्मणेऽस्म'.⁸ Read 'पुत्री मन्त्रायण'.⁹ Read 'शासनविचर'.¹⁰ Read 'शासनोऽग्नि'.¹¹ Read 'सुस्तिर'.¹² Read 'यथाचे'.¹³ Read 'त्यर्थ'.

13 ल[म् ॥*] खदत्ता परदत्ता वा यो हरित वसुधराम् [॥*] चाक्षेपा
चातुमन्ता च सर्वथा नरक^१ व्रजेत् [॥*]

14 प्रवर्षमानविजयराज्यसंवत्सरे सप्तत्रिंशे^२ गि प ७ दि १० ५ ॥

TRANSLATION.

(Line 1.) Hail! The son of the glorious Mahārāja Gōvinda^३varman, who meditated on the feet of the holy lord of Śrīparvata; (who belonged to the family) of the Vishṇukundins; whose power and valour were immeasurable; who was most religious; to whom all vassals were bowing; (and) who (performed) many gifts of cows, gold, and land;

(L. 3.) the glorious Mahārāja Mādhavavarman, who is endowed with (knowledge of) the law, intelligence, power, honesty, firmness, valour, and modesty; whose edicts are worshipped by all rulers of men on the circle of the earth; who delights the hearts of the young women standing on (the top of) the palaces of Trivaranagara; who has subdued all vassals by the power of his own arm; who is endowed with unequalled power, modesty, policy, self-restraint, and honesty; whose edicts are worshipped by the rulers of the earth in the whole world^४; who has performed thousands of *Agñishōma* sacrifices; who is a producer of (i.e. who has performed *Hiranyagarbhas* ^५; who has removed the stains of the world by bathing at the end of eleven *Āvameḍhas* ^६; (and) whose religious rites are everlasting;

(L. 8.) from (his) camp of victory, pitched at Kuḍāvāḍa, commands as follows all men at the village of Vilembali in the district (*vishaya*) of Guddādi.

(L. 9.) 'For the sake of the prosperity of Our family, I have given (this village), with all exemptions, to this^७ Brāhmaṇa Agniśarman of the Vatsa *gōtra*.. Knowing this, all royal officers should exempt and preserve it.'

(L. 11.) The executor (*ājñā*) of this (grant was the king's) dear son, Mañchyanna-bhaṭṭāraka.

[Line 12 f. contain two of the customary Ślokas.]

(L. 14.) In the thirty-seventh year of the reign of increasing victory, the 15th day of the 7th fortnight of the hot season.^८

No. 21.—IPUR PLATES OF MADHAVAVARMAN II.

By PROFESSOR E. HULTZSCH, Ph.D.; HALLE (SAALE).

This is another set of three thin copper-plates without rims, which belongs to the same owner as the preceding one (above, No. 20). The plates measure 7 inches in breadth and 1½ inch in height and have four inscribed faces, the outer sides of the first and last plates having been left blank. The writing is much injured, especially on the two last faces. The plates are strung on a ring, which is about 3" in diameter, and the ends of which are secured in the base of

^१ Read नरकं.

^२ Read सप्तत्रिंशे.

^३ The two last epithets are nearly identical with two others applied to the king before in line 3 f.

^४ *Hiranyagarbha* is the name of the fifth of the sixteen *Mahādānas*. Cf. *anēka-Hiranyagarbbh-ādibha-ōdbbhavasya* in the Maṭṭepād plates of Dāmōdaravarman (above, No. 18), text l. 2 f., and *apramēya-Hiranyagarbha-prasavēna* in the Gōraṇṭha plates of Attivarman *Ind. Ant.*, Vol. IX, p. 102, text l. 3.

^५ The same epithet occurs (with the various reading *avadhanta* for *vidhānta*) in the Rāmātirtham plates, l. 3 f., and in the Chikkalla plates, l. 2 f.

^६ Cf. above, Vol. IX, p. 59, note 6.

^७ With *gi pa* 7 cf. *gimhā pakho chhaṭṭho 6* in the Mayidavōlu plates (above, Vol. VI, p. 88); [*g*] *imha-pakho pakame 5* at Kārī (Vol. VII, p. 61); the following dates of four Nāśik inscriptions (above, Vol. VIII): *gimhā pakho pakame 5* (p. 59); *gimhāna pakho biṭiye 2* (p. 60); *gi pa 2* (p. 65); . . . *mha-pakho choṭho 4* (p. 88) and *gimha-pūkkam pūdamah* in a Maṭṭavāḷi inscription (Vol. X, Appendix, p. 133, No. 1195).

a circular, much worn seal, which is turned towards one side. The seal is divided by a cross-line into two sections. In the lower section the legend श्रीनारायण[वर्मा], in two lines, is very faintly visible, while the symbols in the upper section cannot be made out. The weight of the plates, with ring and seal, is 30 tolas.

The alphabet reminds us of that of the British Museum plates of Chārudēvi (above, Vol. VIII, p. 143). The *Upadhmāniya* occurs in lines 12 and 16. The numerical symbols 7 (thrice) and [40] are used in the date (l. 13).

The language is Sanskrit prose (with two verses quoted in ll. 14-16); but the abbreviation *vā* (l. 13) presupposes the Prākṛit form *vāsa* (= *varsha* in Sanskrit). Consonants are doubled after *r* throughout, *t* before *r* in *kshattriya*^o (l. 3 f.) and *-puttras-* (l. 5), and *dh* before *y* in *°ddhyātō* (l. 7),¹ while *tva* is employed for *ttva* in *-satva-* (l. 6).

The inscription records the grant of a village, the name of which is doubtful, by Mādhavarman (II) (l. 7), who resided at [Ama]rapura (l. 1), ruled over the Trikūṭa and Malaya mountains (l. 5), was a worshipper of the temple at Śrīparvata (l. 6 f.), and belonged to the family of the Vishnukunḍins (ll. 7, 13). His father was Dēvavarman (l. 5), and his grandfather the Mahārāja Mādhavarman (I) (l. 3 f.). As the alphabet of this inscription seems to be of an earlier type than that of the preceding one, and as grandsons are frequently named after their grandfather, I consider it not impossible that Mādhavarman II was the grandfather of Gōvindavarman's son Mādhavarman,² who would then have to be designated Mādhavarman III. The first figure of the year in the date portion of the subjoined inscription (l. 13) is injured and uncertain.

The localities mentioned in this inscription I am unable to identify, with the exception of Trikūṭa, a mountain on the Bombay side,³ and Malaya, i.e. the Western Ghāṭs, both of which were at a safe distance from the dominions of Mādhavarman II, although he professes to have ruled over them. For Śrīparvata=Śrīśailam see above, Vol. IV, p. 195.

TEXT.⁴

First Plate ; Second Side.

- 1 स्वस्ति [१^०] [चम]रपुरादेकादशान्वमेधावभूयावधूतजगत्स्य[व].
- 2 स्यान्निष्टीमसहस्रयाजिनोनेकसामन्तमकुटकूटम-
- 3 णिखचितचरणयुगलकमलस्य^५ महाराजस्य श्रीमा-
- 4 धववर्माणः प्रियमत्ता क्षत्रियावस्कन्दप्र[वर्त्ति]ताप्रतिमवि-

Second Plate ; First Side.

- 5 [ख्या]तपराक्रमस्य श्रीदेववर्माणः प्रियपुत्रस्त्रिकूटमलयाधिपति-
- 6 र्जयविनयसत्त्वसंपन्नो^६ भगवच्छ्रीपद्मवर्तमानमिपादान-

¹ But not in *-svādhyāya-* (l. 8) and *-ddhyātō* (l. 13).

² See above, No. 20.

³ See above, Vol. XI, p. 220, and cf. Vol. IX, p. 269.

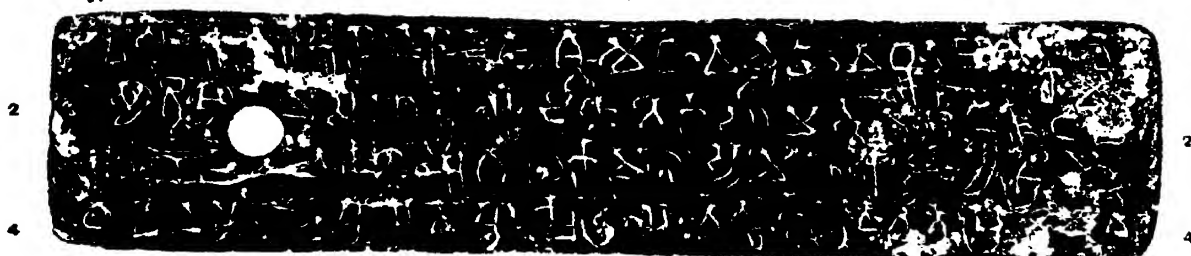
⁴ From ink-impressions supplied by Rao Bahadur H. Krishna Sastri.

⁵ Read °चरचकमलयुगलस्य.

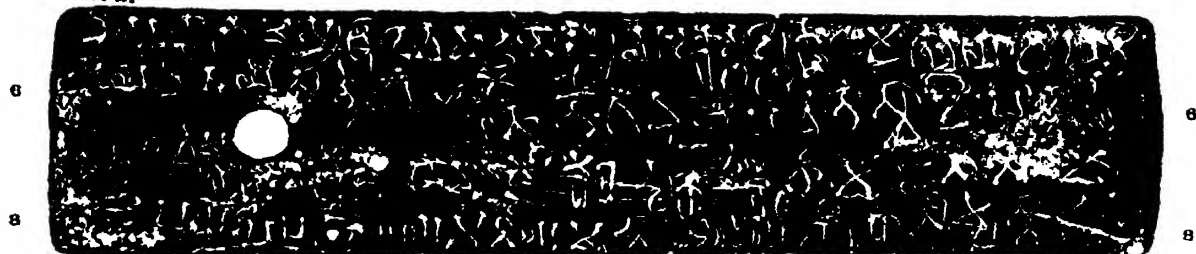
⁶ Read °सत्त्व°.

Ipur Plates of Madhavavarman II.

i.



ii a.



ii b.



iii.



Seal



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- 7 ख्यातो विष्णु — —¹ श्री[म]ाध[वव]र्मा सुरी-क-किष्णामे जनाने[व]मा-
8 आपयति यथा ॥ यमनियमस्त्राध्यायक्रियासम्पन्नाभ्या-

Second Plate ; Second Side.

- 9 अग्निशर्मेन्द्र[शर्मा]भ्य[र]-
10 मा [कळि]क-
11 ग्राम
12 — — जानपदे²परिहर्तव्य[*] [प]रिहार[यितव्यस्य] [*] यस्य [शास]-

Third Plate ; First Side.

- 13 [न]स्यान्ना विष्णुकु[ण्ड]धि[र]ज[ध्या]नोदात्ता ॥ सं [४०] ७ वा प ७
दि ७ श्री³ ॥
14 बहुभिर्वसुधा दत्ता बहुभिरानुपालिता [*] यस्य यस्य यदा भूमि-
15 [स्तस्य] तस्य तदा फल[म्] ॥ स्वदत्तां परदत्तां वा यो हरेत वसुधराम् ।]
16 [गवां] शतसहस्रस्य [हन्तु]⁴पिबति किल्बिष[मिति ॥]

TRANSLATION.

(Line 1.) Hail! From [Ama]rapura, the dear grandson of the glorious Mahārāja Mādhavavarman, who had removed the stains of the world by bathing at the end of eleven *Āśvamēdhas*; who had performed thousands of *Agnishōma* sacrifices³; (and) whose pair of lotus-feet was studded with the jewels on the top of the diadems of many (bowing) vassals;

(L. 4.) the dear son of glorious Dēvavarman, who displayed matchless, well-known valour in attacking warriors;

(L. 5.) the glorious Mādhavavarman, the lord of the Trikūṭa and Malaya (mountains), who is endowed with policy, modesty, and honesty; who meditates on the feet of the holy lord of Śrīparvata; (and who belongs to the family) of the Viṣṇu[kuṇḍins], commands as follows the men at the village of

[Line 8 f. seems to refer to two donees, Agniśarman and Indrasarman.]

(L. 12.) The command (*ājñā*) of this edict⁴ was ennobled by the meditation (?) of the overlord of the Viṣṇukūṇḍins.

(L. 13.) The year [4] 7, the 7th day of the 7th fortnight of the rainy season.⁵ *Om.*

[Lines 14-16 contain two of the customary Ślokas.]

¹ Restore perhaps विष्णुकुण्डिना.

² Expressed by a symbol.

³ These two epithets occur also in line 6 f. of the other Ipūr plates (above, No. 20).

⁴ Cf. *asya śōranasy-ājñaptiḥ*; *South-Ind. Inscr.*, Vol. I, p. 57, text 1 113 f.

⁵ With *vā pa* 7 cf. *vāsa* 6 in the Hīrahadagalli plates (above, Vol. I, p. 7); *varṣha-pakṣhē caturthē* (Vol. III, p. 262); *varṣhā-pakṣhah aśvīnamah* (*Ind. Ant.*, Vol. VII, p. 37); *vāsa-pakṣham* 8 in two inscriptions at Jaggayya-pēta (ASSI., Vol. I, p. 110); *vā pa* 4 at Kārī (above, Vol. VII, p. 64); *vāsa pakṣhe* 2 and *vāśāna pakṣhe* 4 at Nāsik (Vol. VIII, pp. 71, 72.)

No. 22.—REVISED TEXT AND TRANSLATION OF TWO OF THE
KURAM PLATES.

By PROFESSOR E. HULTZSCH, PH.D., HALLE.

Some time after I had published the Kūram copper-plates of the Pallava king Paramēśvaravarman I,¹ the late Professor Kielhorn recognised that plates III and IV of that inscription in which I had noticed only two verses, are all in poetry. I now reprint the very corrupt text of this portion of the inscription (ll. 19-49), arranging it in verse lines, correcting the writer's mistakes, as far as I am able to do this, in notes, and adding a fresh translation. Rao Bahadur Krishna Sastri was good enough to contribute to this article a few additional conjectures, *vis.* °धनुषि, verse 12; युक्तमटे or उत्तमटे, v. 14: स्रगमद°, v. 15; कृतवान्, v. 21; स्रष्ट, v. 23.

The subjoined passage consists of 22 verses (5-26). The relative pronouns in verses 5, 6, 21, and 26 refer to the name of the donor *Paramēśvaravarmanā*, l. 19) at the end of the preceding prose passage. Verses 8-21 form one long relative sentence, describing the king's victory over the Chalukya king Vikramāditya I. Verses 22-26 praise Paramēśvaravarman's state-elephant Arivāraṇa, his charger Atiṣaya, his dagger, and his girdle.

TEXT.²

महेन्द्रवर्माणः पुत्रः परमेश्वरवर्मा
भरत इव सर्व्वदमनः[*] सगर इव कृतासमञ्जसत्यागः [1*]
कर्ण इव पुष्कलांगो यः प्रियक[1*]व्यो ययातिरिव [॥ ५ ॥*]

(a) Metre of verses 5-9: Āryā (30+27 mātrās).

अनुपनतानां राज्ञा (a) यस्याज्ञा भवति सर्व्वदापीका (b) [1*]
सैव सुहृदाम्रयच्छति सुखशोभा (c) कर्णपूरतया [॥ ६ ॥*]

(a) Read राज्ञा. (b) Read °पीडः. (c) Read °शोभा.

चतुरः कलाविक्षासि नियतम् यथांदो (a) भवत्यनंगस्य [1*]
सुक्तागुणस्तु हृदये सुक्तागुण एव वनिता[ना]म् [॥ ७ ॥*]

(a) Read नियतं चंडी

अगणितनरहयकरिकुलविमर्द्जनिनेन रेणुतुहिनेन [1*]
आरोपितशशिमण्डलसादृश्यसहस्रकरविम्बे [॥ ८ ॥*]
पटहरवगर्ज्जितोये विक्रोशनिस्त्रिंशत्विद्युदाभोगे (a) [1*]
प्रचरितकुञ्जरजलदे विकालवर्षावतार इव [॥ ९ ॥*]

(a) Read °निस्त्रिंशत्विद्यु (dyn)°.

¹ South-Indian Inscriptions, Vol. I, pp. 144 ff.

² As the notes on the text are numerous and contain long Nāgarī passages, I am using for them ordinary type instead of the small and indistinct note-type, which, as I know from experience, is liable to breaking and dropping.

...
iii a.

20
 22
 24

iii b.

26 28 30 32

26 28 30 32

तुंगतुरंगतरंगी प्रचरत्कारिमकरजनितविषमावसो (a) [1*]

अविरक्तमुदीर्णशंखे विजृम्भमाणे समुद्र इव [॥ १० ॥*] (b)

(a) Read °वर्ने. (b) Metre : SugIti (32+27).

खड्गलतावरणयुते सगरासुननागतिलकपुन्नागघने [1*]

उद्यतकलकलशब्दे कानन इव चण्डवेगपवनाकुलिते [॥ ११ ॥*] (a)

(a) Metre : Āryāgiti (32+32).

योधापुरोतधनुषु (a) व्यतिपतितपतत्रिरुद्धपवनफथे (b) [1*]

प्रचरिततोमरशक्तिप्रासगदाकणयकप्यणचक्रे (c) [॥ १२ ॥*] (d)

(a) Read योधापुरितधनुषि. (b) Read °पवनपथे. (c) Read °वर्णच°. (d) Metre : Pragiti (30+29).

अन्योन्यलीशरदनकुलीशस्थिरकिलितवदनमत्तगजबृन्दे (a) [1*]

अन्योन्यमूर्धपातितखड्गव्यतिपक्ततुरगसादिगणे [॥ १३ ॥*] (b)

(a) Read अन्योन्यरदनकुलिशस्थिरकौलित°. (b) Metre : Giti (30+30).

शस्त्राशस्त्रकचाकचिदण्डोर्कियाप्रव्यक्तभटजने (a) [1*]

अन्योन्यसदृशगणनपरिभवनीर्यातना (b) [॥ १४ ॥*]

(a) Read शस्त्राशस्त्रिकचाकचिदण्डादण्डक्रियाप्रयुक्तभटे or °प्रवृत्तभटे. (b) Read °गणनापरिभवनिर्यातना. The remainder of this verse is left out by the writer.

मृशमदमिश्रोतशीणितकुंकुमघनलिप्य[मा*]नभूमितले (a) [1*]

विरहितनिपतितबाहुग्रीवाजंघो]रुकाण्डदन्तबलीये (b) [॥ १५ ॥*] (c)

(a) Read मृशमदमिश्रित°. (b) Read °लौचे. (c) Metre : Lalitā (30+32).

भूहस[म्या]तविदीर्णप्रजवितविद्रुत[भूमित]तोभयपथे (a) [1*]

अन्योन्यजयपराजयसन्देहप्रेखलग्नलक्ष्मोविहिते (b) [॥ १६ ॥*] (c)

(a) From [म्या]त to the end, this line is engraved on an erasure. To satisfy the metre अभिसन्धात् might be read. (b) Read perhaps °विहिते. (c) Metre of verses 16-19 : Āryāgiti.

रुधिरौघपालिकायोतपतितगजश्रेणिपृष्ठविचरत्सुभटे (a) [1*]

अन्योन्यघातरन्ध्रानधि[ग]मलसक्तियायतस्थितयोधे (b) [॥ १७ ॥*]

(a) Read रुधिरौघपालिकायित° and °पृष्ठ°. (b) Read °लुप्तक्रियायित°.

शस्त्रीयतभुजदण्डैः (a) सारभविलोहिताक्षदष्टोष्ठपुटे[:*] (b) [1*]

राजन्यै[:*] कृतकृत्यैः नोद्धतिता[र्ध]द्वतैरितस्थितः (c) संकीर्णं च (d) [॥ १८ ॥*]

(a) Read शस्त्री. (b) Read संरम्भ°. (c) Read °कृत्यैर्निहतार्धद्वतैरितस्थितः. (d) The metre requires च to be cancelled.

श्रीर्णध्वजातपत्रै[:*] पतितगजशः(a)सितचलितचामरनिकरे [1*]

खण्डितविद्युदितचूर्णितमकुटगदहारकटककर्णाभरणे (b) [॥ १९ ॥*]

(a) Read °गजाशः. (b) Read °मकुटामण°.

(Verse 14.) in which soldiers were engaged in fighting with sword against sword, pulling of hair against pulling of hair, and club against club; considering each other as equal (or) despising (each other);

(Verse 15.) in which the ground (seemed to be) thickly smeared with saffron, as the blood (of the wounded) was mixed with the musk (anointing their bodies); in which (both) large armies had lost and dropped arms, necks, shanks, thigh-bones, and teeth;

(Verse 16.) in which, during the encounter, both parties were broken, urged on, put to flight, and stretched on the ground; which was witnessed by the goddess of fortune sitting on the swing of doubt about mutual victory and defeat;

(Verse 17.) in which brave warriors were marching on the back of lines of fallen elephants forming a bridge over the flood of blood; in which soldiers stood rendered motionless, as their blows did not hit each other's weak parts;

(Verse 18 f.) which was covered here and there with elephants which had fallen (simultaneously with shattered banners and parasols), and whose respirations waved the mass of chowries and with dead (or) half-dead warriors who had done their duty, whose strong arms (still) raised the weapon, whose lips were bitten, and whose eyes were deep-red with fury; in which tiaras, armlets, necklaces, bracelets, and ear-rings were broken, crushed, and pulverized;

(Verse 20.) in which Kāshmāṇḍas, Rākshasas, and Piśāchas were singing aloud, as they were intoxicated by drinking the liquor of blood; (and) which contained hundreds of headless trunks dancing together in a fearful manner and beating the time (with their hands).

(Verse 22.) Having caused to be accoutred the elephant named Arivārṇa,—whose golden howdah was studded with the splendour of jewels, the flow of whose rut was incessant, (and who therefore) resembled the king of mountains (Himālaya) himself, whose torrents never cease to flow,—followed by thousands of (other) elephants;

(Verse 23.) also the excellent horse named Atiśaya,—who displayed the majestic stepping of the horse of the lord of gods (Indra); who manifested his noble breed by his active jumping; (and) who bore a saddle (set with) jewels,—accompanied by lakhs of (other) horses whose ears were surmounted by chowries;

(Verse 24.) (and having put on) an unique and unequalled curved dagger (set with) jewels, which was fit for the fatigue of battle, attached to a string of matchless big stones, (and) ornamented by being inlaid with rubies and emeralds;

(Verse 25.) (and) a valuable, priceless, famous girdle (which was strung) on a soft string, which emitted the splendour of gems, and the ruby at the end of which (resembled) the bright sun;

(Verse 26) he (*viz.* Paramēśvaravarman) who had destroyed his enemies, inspiring with fear [and despair] the minds of princes, (and spreading) the flower-garland of (his) fame in all regions, carried all these (ornaments)¹ on (his) body that was highly adorned with heroic deeds,—along with the powerful goddess of fortune elinging (to him).

¹ This seems to refer to verse 24f.

No. 23.—DHANAIDAH COPPER-PLATE INSCRIPTION OF THE TIME OF
KUMARAGUPTA I: THE YEAR 113.

BY RADHAGOVINDA BASAK, M.A., CALCUTTA.

This inscription, engraved on a thin copper-plate which now looks very much worn out and fragile, was discovered about a decade and a half ago in a village called Dhanāidaha in the Nātoro Sub-division of the Rājshāhi District in the Rājshāhi Division of the Bengal Presidency. Babu Akshaya Kumāra Maitrēya, B.L., Director of the Varendrā Research Society of Rājshāhi, obtained it from Maulvi Muhammad Ershed Ali Khan Choudhuri (now Khan Bahadur), and it is now deposited in the Museum of the Society along with the five copper-plate inscriptions¹ of the Gupta period recently discovered at Dāmōdarpur in the District of Dinājpur. It was edited in 1909 by Mr. R. D. Banerji, then of the Calcutta Museum, in the *Journal of the Asiatic Society of Bengal* (Vol. V, No. 11, pp. 459-61). Mr. Banerji's decipherment of the inscription was not correct, and the text as prepared by him contained some mistakes. Mr. Vincent Smith in his *Early History of India* (3rd Edition) has referred to this epigraph by the name of the Nātoro inscription in a foot-note at page 327; but he could not make out any material for the history of the period, probably because Mr. Banerji's reading was unsatisfactory and because of his remarks that "the wording of the record is rather difficult to interpret," and that "no continued translation is possible of the text." While editing two of the Dāmōdarpur inscriptions belonging to the same monarch's reign, I had to revise the reading of this inscription, and I re-edited it in the Bengali monthly, the *Sahitya* of Calcutta, in the Pausha issue, 1323 B.S. I now record the results of my decipherment in this Journal for the scrutiny of scholars. Some of the chief mistakes in Mr. Banerji's reading will be pointed out below in the foot-notes. Other differences in our readings may be left to be found out by those of our readers who may care to do so.

The inscription is a fragmentary one, consisting of 17 lines of writing incised in the early Gupta characters of the 5th century A.D. It is written on one side only of the plate, which is now very much corroded. In length the full plate seems to have been almost twice the fragment now preserved, which measures $5\frac{1}{4}" \times 5\frac{1}{2}"$. Almost the whole of the proper right half of the plate is broken and lost together with the upper right and lower left corners. From an examination of the portions of the writing preserved in lines 14-16, which form parts of the well-known imprecatory verses, it can be ascertained that about a dozen and a half letters are cut off from the proper right side of each of the lines. This loss of almost half of the inscribed portion and the extremely blurred state of the letters preserved are the greatest obstacles in explaining the document. But the five newly discovered Dāmōdarpur copper-plates and the four Faridpur grants² have helped us much in deciding that the present plate also, like them, is not an ordinary royal land-grant, but is a sale-deed embodying the record of a purchase of land for the purpose of donation. Mr. Banerji states that the fragments of the proper upper right corner, which was broken in the exhibition grounds of the Calcutta Industrial Exhibition of 1906-7, contained the two letters *ma* and *ra*, which, he thinks, were evidently the second and third syllables of the name of the emperor Kumāra-gupta. The inscription is dated in 113, which must be referred to the Gupta era, and this evidently proves that it belonged to the time of the Gupta

¹ Above, Vol. XV, No. 7. I take this opportunity to acknowledge most thankfully the suggestion of Mr. K. N. Dikshit, M.A. Superintendent of Archaeology, Eastern Circle, that I should have read 128 in place of 129 and 224 in place of 214 as the dates in Plates Nos. 2 and 5 respectively of the Dāmōdarpur inscriptions. These corrections in the dates do not quite materially affect the historical deductions I made in my paper on them published in this Journal.

² *Indian Antiquary*, 1910 and *J. A. S. B.*, 1911, No. 8.

monarch Kumāra-gupta I. The language of the inscription is Sanskrit, and it is in prose throughout excepting in lines 14-16, which contain the three imprecatory verses. Mr. Banerji's statement that "the bad state of preservation makes it very difficult to make any remarks on the orthography" cannot be upheld; for, the following points in respect of orthography may easily be observed :—

(1) as in the Dāmōdarpur copper-plates, the sign of the medial *ā* is attached by a hook-sign towards the bottom of the lower right of some of the letters, especially of *kha*, *ga* and *ṇa*, e.g. *khāsaka* l. 5, *Khādā(ṭā?)pāra* l. 7; *grām-āṣṭa* l. 6; and *guṇ-āguṇa* l. 13;

(2) the sign of *aragraha* is not used, as in *-vishayē=nuvṛitta* l. 7;

(3) the letters *ga*, *ṇa*, *ta*, *ma*, *ya* and *va* (and not *sha*, e.g. *varsha* l. 15) are doubled with a preceding *r*, e.g. *vargya* l. 4, *siarggē* l. 15; *utkrṇṇam* l. 17; *kṛtti* l. 4; *-śarmma* ll. 3 and 5, *dharmma* l. 8; *-maryyādā* l. 7; and *-pūrva* ll. 2 and 16, *sarvva* l. 9;

(4) *m* has sometimes been joined with following *pa* and *va*, e.g. in *svadattām-para-dattām=vā* l. 14; and

(5) *ka* has been doubled with a following *r*, e.g. in *kkramēna(ṇa)* l. 8.

The form of the initial vowels *ā*, *i* and *u* are seen in the following words respectively, *āyuktaka* l. 11, *iha* l. 7, and *utkrṇṇam* l. 17. The form of the letter *mē* in *kkramēna(ṇa)* l. 8, *sarvva=ēva* l. 9, *Stha(Sta)mhbhēśvaru* l. 17, and *-kulyavāpam=ēkaṁ* l. 11, is to be noticed. For a similar incision of *mē*, especially the *ē* mark in it, we may compare the words *kāvyam=ēśhām* l. 31 in Fleet's, C. I. I. Vol. III, No. 1 and *guhām=ētām* l. 5 (*ibid*, No. 6), and the word *dōsha-grāmō* l. 1 (wrongly read as *dās-āgrēna* by Mm. H. P. Śūstri and Mr. R. D. Banerji) of the Susunia Rock Inscription (above, Vol. XIII, p. 133). In my paper on "The Five Damodarpur copper-plate inscriptions of the Gupta period," published in this Journal (*vide* Vol. XV, Part III), I made a remark at the outset that those sale-deeds, which our present inscription resembles, "may be regarded as having roughly six different parts in the form in which they are drawn up." The same remark holds good with regard to this inscription also. The first part ends with the word *viññāpitā* l. 7, the second with *dā[tuṁ]* l. 8, the third with *tad=avadhṛitam=itī yatas* l. 10, the fourth with *ēkaṁ dattam* l. 11, the fifth with *-Varāha-svāminō dattam* l. 12, and the sixth with the rest of the grant.

The contents of the inscription may be stated as follows :—In the year 113 G.E. (=432-33 A.D.), belonging evidently to the reign of Kumāra-gupta I, some one (very likely a royal officer, an *āyuktaka*) whose name seems to have ended in *-vishṇu* (l. 7) approached the village householders, the *mahattaras* and the *āṣṭa-kul-adhikaraṇas* and perhaps also the local government of the district and expressed to them his desire to purchase one *kulyavāpa* of cultivated land by paying the price at the usual rate prevalent in the *vishaya* of *Khādā(ṭā?)pāra*. It seems that the applicant wanted to buy the land by destroying the *nivṛt-dharma* (the non-transferability of it), i.e. with the right of alienation. His prayer was granted and the purchased land was severed for him by proper measurement. He in turn seems to have made a donation of the same to a *Sāmavēdin Brāhmana* (*chhandōga* l. 12) of the name of *Varāha-svāmin*. It seems very probable, though the mutilated condition of the plate does not permit us to be very confident on the point, that the *Dhanāidaha* plate contained a reference to the *Puṇḍravardhana bhukti* being under a governor appointed by the Gupta ruler (compare the Dāmōdarpur plates of the years 124 and 128 G.E., belonging to the same monarch's reign) and that the *vishaya* of *Khādā(ṭā?)pāra* was, like *Koṭivarsha*, one of the many districts of the same *bhukti*. In the *Khālimpur* copper-plate¹ of *Dharmapāla*, King of *Gauḍa*, though of the 9th century A.D., we have the names of two other *vishayas*, viz. *Mahāntāprakāśa* (l. 31) and *Sthālikkaṭa* (l. 41), as being situated in the *bhukti* of *Puṇḍravardhana*.

¹ Above, Vol. IV, p. 249.

I edit the inscription from the original plate:—

TEXT.

- 1 mvatsara¹-śat[ē] trayōdaś-ōtta².
- 2 n=d[i]vasa³-pārīvāyām parama-daivata-para⁴
- 3 ā (?) kuṭu[mbi] brāhmaṇa-Śivaśarma-Nāgaśarma-
ma-maha⁵
- 4 va-kīrtti-Kshēmadatta⁶-Goshṭhaka - Varggapāla - Piṅgala - Śūṭkuka-
Kāla-
- 5 pa (?) -vishṇu - [Dēva]śarma - Vishṇubhadra⁷ - Khāsaka - Rāmaka-
Gopāla-
- 6 sa (?) su (?) Śrībhadra-Sōmapāla-Rām-ādyāḥ (?) grām-āshṭa-kul-
ādhikarapañ=cha
- 7 vishṇupā (?) vijñāpitā iha⁸ Khada(ṭa ?)para-vishayē-nuvṛitta⁹-
maryyādā-sthi[ti]-
- 8 nivi-dharma-kshayēṇa labhya[tō] [ta]d=arhatha mam¹⁰-ādy-
ānēn=aiva kkramēna(ṇa) dā[tuṃ]
- 9 samētya=ā(?)bhīhitai(h ?) sarvva=ēva * jūā(?)kara-prativēśi(?)=
kuṭumbibhir=avasthāpya ka-
- 10 * ri * kana * yad=itō * * [ta]d=avadhṛitam¹¹=iti yatas=
tath=ēti pratipādyā
- 11 vaka¹²-nalā[bhyā]m=apaviñchhya kshētra-kulyavāpam=ēkaṃ dattam
tataḥ āyuktaka-
- 12 * bhrā(?)tṛi - kaṭaka - vāstavya¹³ - chhandōga - brāhmaṇa - Varāha-
svāminō dattam tad=dha-[va ?]
- 13 bhūmyā dā[n=ākshē]pō cha guṇ-āguṇam¹⁴=anuchintya śarīra-
ka(kā)ñchanakasya chi-
- 14 ā [u]ktañ=cha bhagavatā Dvaipāyanēna Svadattām=para-dattām=
vā
- 15 [bhiḥ] saha pachyatō [||*] Shashṭim¹⁵ varsha-sahasrāni(ṇi)
svarggō mōdati [bhū]midat [||*]

¹ Read *saṃvatsara*-. .

² Read *-ōttarē*.

³ Read *asyān=divasa*-. .

⁴ Read *-paramabhāṭṭāraka*-. In the Dāmōdarpur plates also Kumāra-gupta I is styled *parama-daivata*.

⁵ Read, perhaps, *mahattara*-. .

⁶ & ⁷ Mr. Banerji reads *Kshamavanta* and *Vishyabhadra*.

⁸ Mr. Banerji reads *Mahā-khushāpāra*.

⁹ Mr. Banerji reads *nivatta* instead of *anuvṛitta*.

¹⁰ Mr. Banerji's reading "*māśādyā nanu vakka lēna (?)*" instead of our reading "*mam=ādyā-ānē=aiva kkramēna(ṇa)*" and his remark on the palaeography of his supposed *la* in his own reading *lēna (?)* is unwarranted.

¹¹ Instead of *avadhṛitam=iti yatas=tath=ēti* Mr. Banerji read *dahyakam=iti yatas=t(y)ajati*.

¹² Read *ashṭaka-nava-ka-nalābhyāḥ*. The sense of the whole document depends on the correct reading of this line of the inscription, and Mr. Banerji's reading gives no help. His reading of the whole line is as follows:—
" vāra nālaka sada (?) vī chya kṛitya vasa-laka (?) datta tataḥ
suyuktaka "

¹³ Mr. Banerji reads *vantēbhya (?)* for *vāstavya* and *chāndatō (?)* for *chhandōga*.

¹⁴ Mr. Banerji reads *suṇu (?)* *guṇam*.

¹⁵ Mr. Banerji reads *śaṣṭi(ṇi)*.

- 16 [Pū]rrva-dattām dvijātibhyo yatnād-raksha Yudhishtira [*]
mahīm [mahī][matān-chhrēshṭha*]
17 ya[m] su (?) Śrībhadrēna(ṇa) utkirṇam Stha(Sta)mbhē-
śvara¹dāsē[na]

TRANSLATION.

In the year one hundred exceeded by thirteen on this day (as above specified), [during the reign of] *parama-daivata parama-bhaṭṭāraka*, etc. *Kumāra-gupta* the ryots (of the village) the Brāhmaṇas Śiva-śarman, Nāgaśarman and the *Mahattaras*² [DēP]vakīrtti, Kshēmadatta, Gōshṭhaka, Varggapāla, Piṅgala, Suṅkuka, Kāla, -vishṇu, Dēvaśarman, Vishṇubhadra, Khāsaka, Rāmaka Gōpāla, su (?) Śrībhadrā, Sōmapāla, Rāma and others, and the officer³ in charge of eight *kulas* in the village were informed by (some officer whose name appears to have the ending *Vishṇu* 127) as follows :—

“In this *vishaya* of *Khada(ṭa P)pāra* the established custom (regarding the sale of cultivated land) prevalent to be had (at such rate) by the nullification of the custom of permanent endowment⁴ (*nīti-dharma*). So deign to make a gift (of land) this day according to this method by the neighbouring house-holders who are obedient and who are (thus) addressed establishing”

Whereas it was so determined, and whereas this determination was accepted by the state-ment “be it so”—one *kulyavāpa*⁵ of cultivated land was given to him, with its area severed⁶ by the measurement of 8 × 9 reeds.

Then the same land was given to the *Chhandōga*⁷ (Sāmavedin) Brāhmaṇa *Varāha-svāmin*, an inhabitant of the *kaṭaka*⁸ of, by this official⁹ (*āyuktaka*).

So, considering the merit and demerit respectively of making a gift and confiscating (it), and (the unstability) of body and gold, (this gift is to be preserved). To the same effect has been stated thus by Bhagavān Dvaipāyana (Vyāsa):—

(1) Whoever confiscates land given by himself or by another becomes a worm in ordure and rots with his forefathers.

(2) Land has been given by many kings, such as Sagara and others: the reward (of these grants) belongs to whosoever at any time possesses the earth.

(3) O Yudhishtira, best of land-lords, preserve with care land already given to the twice-born (Brāhmaṇas); for, the preservation of land-grants is more meritorious than the making of a grant. Engraved by su (?) Śrībhadrā and (written) by *Stambhēśvaradāsa*.

¹ Mr. Banerji reads the name as *Sthaknēśvara*.

² *Vide* my note on this word in Plate No. 4 of the Dāmōdarpur collection, above, Vol. XV, p. 137.

³ *Vide* my note on this word, *ibid*, p. 137. Mr. Banerji's explanation of this term as “a local officer (*kulādhikarāṇa*) who exercised authority over eight villages” does not seem to be correct. He was rather an officer in the village having supervising authority over eight *kulas* (for the technical meaning of which see Kullūka's commentary on *Manu*, VII, 119).

⁴ *Vide* my note on the term *nīti* in Plate No. 1 of the Dāmōdarpur collection, above, Vol. XV, p. 131, n. 8, and *Indian Antiquary*, 1919, p. 14.

⁵ *Vide* my note on this word on p. 132, above, Vol. XV.

⁶ The word *apaviṇchāya* occurs in the Faridpur grants (*Indian Antiquary*, 1910) and in Dāmōdarpur plate No. 3, l. 10, p. 136, above, Vol. XV.

⁷ *Chhandōga* means one studying the Sāmaveda. For the use of this term *vide Manu*, III, 145; and the Banskhera Plate of Harsha, above, Vol. IV, p. 211.

⁸ *Kaṭaka* may either mean a camp or the capital.

⁹ *Vide* my note on the same in Plate No. 4 of the Dāmōdarpur collection, p. 140, above, Vol. XV.

No. 24.—SOME IMAGE INSCRIPTIONS FROM EAST BENGAL.

BY NALINIKANTA BHATTASALI, M.A., CURATOR, DACCA MUSEUM.

The short votive inscriptions recorded on the pedestals of images are often very useful to the antiquarian in more ways than one. They not only illumine the darkness of the past like flash-lights by furnishing pointed and concise historical information, but the help that they give in determining the periods of sculptural history is by no means inconsiderable. Students of iconography too have reason to welcome them, since many votive inscriptions contain the names of the images on whose pedestals they are inscribed, helping thus to identify them easily. Below I edit six such votive inscriptions from East Bengal, in some of which all the three characteristics noted above will be found to exist to the fullest degree.

1. THE BHĀRELLĀ NARTTĒŚVARA IMAGE INSCRIPTION.

The worship of images of Naṭṭēśa-Śiva (the dancing Śiva) seems to have been a peculiarity of Southern India. Such images in metal abound in Southern India and Ceylon; but they are very rarely met with in the North-Indian Provinces. How Bengal came to share this peculiarity with the Deccan is one of the unsolved problems of history. We must, however, note here that north and west Bengal do not show this peculiarity, and it is only in the south-eastern districts, roughly comprising the ancient divisions of Vaṅga and Samatāṭa, that images of the dancing Śiva were discovered. The Dacca Museum has three excellent specimens, while a rather ill-preserved one is to be found in the Rājshāhi Museum.¹ I know of two other very well preserved Naṭṭēśa images, which are being worshipped in two villages in the Dacca and Tippera districts of East Bengal.

The discovery of so many images of the same class in a rather limited area cannot be accidental, and it is quite possible that their worship was introduced by some Śaiva ruling family. The Sēna kings, whose origin some trace to the Deccan, had their metropolis in Vikramapura in the Dacca district, in the heart of the ancient Vaṅga, as is attested by the majority of their copper-plates, and they were renowned Śaivas. It is very probable that the worship of Naṭṭēśa-Śiva came from Southern India with the Sēnas. It is worth noting that out of the seven images so far discovered and known to me, five came from Vikramapura; and a village situated in the suburbs of the capital of the Sēnas in Vikramapura (a *pargana* in the Dacca district) contains the ruins of a big temple and is still called Nāṭṭēśvara. The present image, however appears to be earlier than the Sēnas.

The inscription here edited was found on the pedestal of a huge image of Naṭṭēśa-Śiva dug out of a tank in a village called Bhārellā, Police Station Baḍkāmtā, in the district of Tippera. It was brought to my notice in 1911; and in 1912 I went to Bhārellā too late to save the image, which was broken to pieces by a fanatic Fakir; but I procured the inscribed pedestal for the Dacca Sāhitya Parishat, where it is at present preserved. A large fragment of the figure of the god is now in the Dacca Museum. I edit the inscription from the original.

The inscription is in two lines in four sections on four planed faces of the pedestal, below the lotus-seat of the god. The whole inscribed surface measures in length about 14", and the letters are approximately $\frac{1}{4}$ " long. The first section has suffered a little by the peeling of the stone, while the beginning of the third and the longest section has been altogether chopped off, damaging altogether 12 or 13 letters of each line. The first line runs connectedly to the end of

¹ The image was found in the village of Kalikāl under Police Station Lauhajang in the Dacca district. So it must not be taken as an instance of a find in north Bengal.

the third section and then returns to the first section to begin the second line. The name of the sculptor is given in the fourth section in two lines

The characters used are the ordinary north-eastern characters which gave birth to the modern Bengali script, and which even at this stage show distinct resemblance to the modern script of Bengal. Paleographical considerations would lead us to assign the latter half of the 10th century as the time when this inscription was incised. The date is missing; but it may be that the lost portion of the second line in the beginning of the third section contained a date. There are some data from which a date perhaps is obtainable by mathematical calculation. The image was consecrated on a Thursday, under the star Pushya, on the fourteenth day of the dark half of the month, the day being the 14th of Āshāḍha counted by the movement of the moon. It would be a very interesting calculation to lovers of astronomical problems to find out in which year or years between 900-1100 A.D. all these data met. I myself do not possess the necessary equipment for the calculation. Dewan Bahadur L. D. Swamikannu Pillai who was consulted by Mr. Krishna Sastri on my behalf kindly writes :—

“Between 900 A.D. and 1000 A.D. there are three dates which agree perfectly, viz. A.D. 912, 939 and 983. I have marked these with an asterisk in the accompanying list which shows also dates of less perfect agreement. There must be an equal number between A.D. 1000 and A.D. 1100. We cannot tell which of these dates is meant.

Thursday Ashadha, ba. 14. Pushya.

A.D. 905. Th. 4 July; .32; n. f. d. .75.

A.D. 912. Th. 16 July; .09; .63.*

A.D. 925. Th. 21 July; f. d. t. .52; f. d. n. .68.

A.D. 932. Th. 5 July; .52; f. d. n. .90.

A.D. 939. Th. 18 July; .41; .86.*

A.D. 942. Th. 14 July; f. d. t. .12; f. d. n. .89.

A.D. 966. Th. 19 July; .71; f. d. n. .09.

A.D. 969. Th. 15 July; f. d. t. .21; f. d. n. .90.

A.D. 983. Th. 12 July; .03; .94.*

A.D. 993. Th. 20 July; f. d. t. .01; f. d. n. .30.”

He adds: “14th *tithi* means nothing more or less than 14th day by the movement of the moon. A solar month date would be different, but in a lunar month the days and *tithis* are the same in the Indian Calendar. In the Muhammadan, Jewish and Greek Calendars there may be a slight difference.”

The inscription refers itself to the 18th year of the reign of a king **Layaha-Chandra** by name. Kings with the surname Chandra are found on the thrones of two adjacent countries, viz. Vaṅga and Arakan. The Chandra kings of Vaṅga, who, like the Sēna and the Varman kings, had their capital in Vikramapura, are known from two copper-plates.¹ But no name in their geneology resembles Layaha-Chandra, which sounds indeed rather outlandish. We find an account of the Chandra kings of Arakan in Phayre's *History of Burma*, p. 45, and *Numismata Orientalia*, Vol. II, Pt. I, p. 42, by the same author, where we learn that the dynasty came to an end in 957 A.D. We know of another isolated Chandra king of Vaṅga, Gōvinda-Chandra by name, from Rājendra-Chōla's inscription.² Layaha-Chandra-dēva must have belonged to one of these three lines. If Layaha-Chandra was of the Arakan line, 989 A. D. may be taken as the date of this inscription.

¹ *Ep. Ind.*, Vol. XII, p. 186. and *Dacca Review*, Vol. II, p. 250. Recently a third plate of Śrī-Chandra-dēva was found and edited by me in the *Dacca Review* for May and June 1919, 17. XII. 1919.

² *Ep. Ind.*, Vol. IX, pp. 232-233,

Ballads, at one time very widely popular are current about a king called Gōvinda-Chandra throughout Bengal. One was published by Grierson in J. A. S. B., 1873. Another was published by Babu Śib Chandra Śil from Chinsura near Calcutta. I published a version by a poet called Bhabānidās, edited from two manuscripts of the song procured from the Tippera district. All these versions say that Gōvinda Chandra was the daughter's son of Tilak Chandra king of Mēhārkul which is still a *pargana* of the Tippera district. Gōvinda Chandra of Rājendra-Chōla's inscription and the Gōvinda-Chandra of the ballads appear to have been the same person, and Layaha may have been the name of the father of Tilak Chandra.

Kusuma-dēva, whose son Bhāvu-dēva consecrated the image of Narttēśvara, seems to have been a vassal prince under the suzerainty of Layaha-Chandra, ruling over Karmmānta, which I am inclined to identify with modern Baḍkāmtā (the senior Kāmtā), some three miles south-west of the find-place of the image. Baḍkāmtā is still a place of considerable importance, being a police station with a big Zemindary kachery, situated within a spacious area surrounded by an ancient moat and containing two big tanks, in the smaller of which many ancient stone images of Brahmanical deities were found. Stone images, both Buddhist and Brahmanical, abound in the villages surrounding Baḍkāmtā, and testify to the former prosperity of the tract. The area surrounded by the moat probably indicates the site of the palace. The appellation *Dēva* at the end of the names of Kusuma-dēva and Bhāvu-dēva is also in favour of supporting their claims to royal dignity. My friend Prof. Rādhāgōvinda Bāsak, M.A., however, is in favour of taking the word Karmmānta to mean 'a store of grain,' and degrading Kusuma-dēva to the rank of an officer in charge of the royal granary. We know that the two plates of Dēva Khaḍga published by the late Gangamohan Laskar in the Memoirs, A. S. B., Vol. I, were issued from Jaya-Karmmānta. I have elsewhere tried to show that Karmmānta the capital of the Khaḍgas and the Karmmānta of the present inscription are identical, and is the present Baḍkāmtā (J. A. S. B., July 1914).

The language of the inscription is Sanskrit prose throughout. As to orthography, we may note the doubling of consonants after *r* as in *karmmānta* (l. 1), *survakshara* (l. 2), etc., but *chaturdaśyām* (l. 1) is spelt with one *d*.

Numeral figures for 1 and 4 are used in designating the 14th day of Āshāḍha.

The letters of the inscription are mentioned to have been engraved by one Ratōka; but Madhusūdana seems to have been the sculptor who made the image.

TEXT.

Part I.





- 1 [सिद्धिरस्तु¹] श्रीमन्नयहचन्द्रदेवपादीयविजयराज्ये चष्टा[दश * * * * * क]णचतुर्दश्यां
तिथौ वृहस्पति²वारे पुष्यनक्षत्रे कर्मांतपाक्षयो-
- 2 कुसुमदेवसुतश्रीभावुदेवकारितश्रीनर्तेश्वरभट्टा[* * * * *] चन्द्रगत्या
। चाषाढदिने १४ ॥ खनितञ्च रतोक्तेन सर्व्वेश्वरः

Part II.


- 1 खनितञ्च श्रीमधु-
- 2 सुदनेनेति ॥

¹ Expressed by a symbol; see below, p. 352.

² Read वृहस्पति.

N. B.—It is customary to read the auspicious symbol  or  in the beginning of an inscription as  and this interpretation has been adopted by eminent epigraphists like Hoernle and Fleet. Hoernle writes thus (Intro. *Bower Manuscripts, Indian Antiquary* reprint, p. 22):—“Indian manuscripts or records as a rule commence with some benedictory word, such as *siddham* ‘success’ or *swasti* ‘hail’ or with the sacred particle *Om*. The last mentioned is almost universally used at the present day. It may be either written in full or indicated by a symbol. The latter takes the form of a spiral, which may turn either to the right or to the left, and which is probably a conventional representation of the sacred *śankha*, or conch-shell.” In editing the Mankuwar Stone Image Inscription of Kumāra-gupta, where this symbol is met with for the first time, Dr. Fleet remarks (*Corpus. Ins. Ind.*, p. 46, n. 3):—“As was usual throughout the whole of the period covered by this volume, this word is represented by a symbol, not by letters. *Om* is not of very frequent occurrence at the commencement of Buddhist inscriptions.” Thus both the scholars read the symbol as *Om*, but none has advanced any reason for their reading it so. Writing about eight centuries and a half earlier, Al Beruni also says the same thing (Vol. I, p. 173):—“The Hindus begin their books with *Om*, the word of creation, as we begin them with ‘In the name of God.’ The figure of the word *Om* is . This figure does not consist of letters; it is simply an image invented to represent this word, which people use, believing that it will bring them a blessing and meaning thereby a confession of the unity of God.” This passage of Al Beruni is perhaps responsible for the confident reading of Hoernle and Fleet. But the reading should be reconsidered in the light of the following points:—

(a) In Bengal, this symbol was largely used in all ancient documents and manuscripts and in teaching alphabets to beginners they were taught to draw this symbol to start with. This custom was prevalent as late as twenty-five years ago, but has disappeared by this time. This symbol was called *ām̐ji* and was supposed to signify the god Gaṇeśa, the giver of success, being drawn to represent his elephant’s trunk. In reading, it was read *Siddhir=astu*.

(b) In the Gupta inscriptions this symbol only appears in those in which the customary benediction *Siddham* is left out, and nowhere does it appear with . Consequently it must have stood for *Siddham*, and as time went on it must have become more and more customary to represent the word by this symbol.

(c) In some inscriptions the symbol is found to precede *Om*, which would never have been the case if the two were identical. In such cases the reading given is *Om*, *Om*, which is certainly not reasonable. Reference may be made to *Epigraphia Indica*, Vol. XII, p. 8, *Ibid*, Vol. XIV, p. 159, for examples of the joint use of *Om* and this symbol.

In view of these facts, the symbol, I think, should be read *Siddham* or *Siddhir=astu* ¹


TRANSLATION.

Part I.

May success attend! In the eighteenth year of the victorious reign of His glorious Majesty *Layahachandra-dēva*, on Thursday in the dark Fourteenth Tithi, and under the star *Pinshya*, *Bhāvu-dēva*, son of *Kusuma-dēva*, Lord of *Karmānta*, caused to be made the Lord *Narttēśvara* . . . on the 14th day of *Āshāḍha* (calculated) by the movement of the moon. And all the letters engraved by *Ratōka*.

Part II.

Also engraved by the illustrious *Madhusūdana*.

¹ [This seems to be the proper interpretation of the symbol, in spite of Al Beruni’s statement to the contrary. In the Tamil country the same symbol slightly modified  is even today called the *Pillaiyār-ṣuḷi* ‘Gaṇeśa’s curl’ and is first taught to be drawn by children before they begin to learn their alphabet.—Ed.]

2. THE BĀGHĀURĀ NĀRĀYAṆA IMAGE INSCRIPTION.

This inscription was brought to my notice in 1912, when I went to Tippera to secure the inscription described in the foregoing pages. Ramānāth Chakravarty, a former pupil of mine, whom I met in Comillā, gave me to understand that an inscribed image of Viṣṇu had been discovered in a village near the Sub-divisional town of Brāhmanbāriā in the Tippera district and that the local people had been able to read the word Mahipāla on the inscription. My curiosity was considerably roused to come across an inscription of the Pāla kings so far east from their native home in north Bengal. Pressure of business, however, did not allow me to go after the inscription at that time, and for the next two years I was too busy elsewhere to think of getting at it. Towards the beginning of the year 1914 a friend of mine, Babu Upendrachandra Guha, B.A., B.T., who is an enthusiast in matters archaeological, secured chalked photographs of the inscription and published an article with a reading of it in the local monthly, the *Dacca Review*. The reading, however, was rather defective, and I gave a more correct reading in the next number of the journal. I also published a correct reading of the inscription in the January number of the *J. A. S. B.*, 1915 and pointed out its importance.

The image containing the inscription was dug out of a pond some ten or twelve years ago in the village of Bāghaurā near the Sub-divisional town of Brāhmanbāriā in the district of Tippera. It is now worshipped by a half-crazy woman in the neighbouring village of Vidyākūṭa. In January 1915 I visited the spot and obtained some excellent photographs of the image; but no amount of persuasion could prevail upon the woman to part with the image.

The inscription purports to be of the third year of king Mahipāla, presumably Mahipāla I of the Pāla dynasty of Bengal. It records the installation of the god Nārāyaṇa in Samataṭa, included in the kingdom of Mahipāla, by a merchant, Lōkadatta, son of Vasudatta and hailing from the village of Bilakindaka, in furtherance of the religious merit of himself and parents. Bilakindaka is in all probability the village Bilakēnduāi, situated close to Bāghaurā.

The importance of the inscription is twofold. First, it definitely settles the position of the kingdom of Samataṭa. There is no room for doubt now that the village of Bilakēnduāi must have been inside the kingdom of Samataṭa. Now let us recall what Yuan-Chwang says about Samataṭa. The pilgrim came to the country of Samataṭa going 1,200 or 1,300 *li* south of Kāmarūpa. Taking 5 *li* to 1 mile, 1,200-1,300 *li* represent about 250 miles. The country of Samataṭa was about 3,000 *li* (i.e. 600 miles) in circuit and bordered on the great sea. The land lay low and was regularly cultivated. Now, if we look round for the country which must satisfy all these conditions and at the same time must include the Brāhmanbāriā Sub-division of the Tippera district, in which the village of Bilakēnduāi is situated, and if we remember that natural barriers such as mountains and rivers marked off one kingdom from another in those days, we cannot but accept the plain tract of land bounded by the Garo and the Khasi Hills and the hills of Tippera on the north and east, by the Lauhitya, or the old Brahmaputra river, on the west, and by the Bay of Bengal on the south as the ancient kingdom of Samataṭa. It is a perfectly natural geographical unit with neatly marked boundaries, comprising the eastern half of the present Mymensingh and Dacca districts lying east of the Brahmaputra, the greater part of Sylhet, and the whole of the Tippera and Noakhali districts. The distances between countries recorded by Yuan-Chwang are, in all reasonable probability, distances between the capital towns; and the distance of 250 miles recorded by Yuan-Chwang between Kāmarūpa and Samataṭa is pretty accurately the distance between Gauhati and Comillā¹ by any modern route. The circuit of 600 miles is also right and the tract, which is a vast plain, borders on the great sea.

¹ I am of opinion that Baḍkāmtā, 12 miles west of modern Comillā, was the ancient capital of Samataṭa. Vide my paper "A forgotten kingdom of East Bengal," *J. A. S. B.*, March 1914.

There has been much discussion about the situation of the countries of *Shi-li-ch'a-ta-lo* *Kia-mo-lang-kia*, etc., mentioned by Yuan-Chwang in his account of the kingdom of Samatāṭa ; but no satisfactory solution seems to have been arrived at. With our present identification of Samatāṭa we may proceed to consider their cases also. This is what we find in Beal's edition about them :—

" Going *north-east* from this to the borders of the ocean, we come to the kingdom of Śrikshetra (*Shi-li-ch'a-ta-lo*). Farther on to the *south-east* on the borders of the ocean, we come to the country of Kamalaṅka (*Kia-mo-lang-kia*). Still to the east is the kingdom of Dvārāpati (*To-lo-po-ti*). Still to the east is the country of Ishanapura (*I-shang-na-pu-lo*). These six countries are so hemmed in by mountains and rivers that they are inaccessible."

Now, the pilgrim says that the country of *Shi-li-ch'a-ta-lo* might be reached by proceeding *north-east* to the borders of the ocean. This anomalous statement seems to have puzzled everybody, including Beal and Watters, as the borders of the ocean are never reached by going *north-east* from Samatāṭa, wherever its position might have been in eastern India, and the fact that all the original copies of the Travels available, as well as the biography of the pilgrim, give *north-east* as the direction, has stood in the way of emending the text to *south-east*. My studied opinion is that in spite of the unanimity of all the versions, *north-east* is a manifest mistake for *south-east* and the apparent unanimity arises from the mistake having originated in a very early copy of the 'Records.' The very qualifying phrase that the direction would lead to the borders of the ocean is sufficient for the emendation. But the emendation is confirmed by the manner in which the succeeding sentences begin. The next sentence begins thus,—"*Farther on to the south-east, etc.*" and this would lose all force if "*south-east*" had not been the direction spoken of in the previous sentence. If we accept *south-east* and move from Comillā in that direction to the borders of the ocean, we arrive at a place called at present Chittagong (Eng. Chittagong), which was anciently called Śrī-Chattala, a name still frequently used. Is there any reasonable objection to identifying Yuan-Chwang's *Shi-li-ch'a-ta-lo* with Śrī-Chattala of the present times ? It is evident that it satisfies all conditions.

The second importance of the inscription lies in the fact that it throws some light on an obscure part of the history of the Pāla kings of Bengal. The Bangarh plate of Mahipāla I¹ and the Dinājpur pillar inscription² inform us that some usurpers drove Vīgrahapāla from the throne and that he, after losing his kingdom, took shelter in the eastern country where water abounds (*dēśē prāchi prachurapayasi*). His heroic son Mahipāla recovered the lost kingdom of his father. The two characteristics, water-abounding and eastern, agree well with the present districts which composed the ancient kingdom of Samatāṭa,—so well that it is impossible to suggest any other country which answers equally to the description ; and little room is left for doubt that the eastern country alluded to was the kingdom of Samatāṭa. The new Bāghāurā image inscription, which is the earliest of the reign of Mahipāla, finally settles all doubts on the point. When we find that Samatāṭa was under Mahipāla so early as in the third year of his reign, we cannot but conclude that it was Samatāṭa where Vīgrahapāla took shelter, suffering reverses in war with the usurper, and leaving north Bengal in the hands of the victor. The fact of the earliest inscription of Mahipāla turning up in Samatāṭa points to his having probably been crowned there and this was perhaps the loyal country used by him as the base of operations in his fight with the usurper for the recovery of his father's kingdom.

The *śloka* in the Bangarh plate which describes Vīgrahapāla's sojourn in the eastern country has been copied also in the Āmgāchhi plate³ of his great-grandson Vīgrahapāla III, where,

¹ J. A. S. B., Vol. LXI, pp. 77-87 and *Gauḍulēkhamālā*, p. 91. Also *Ep. Ind.*, Vol. XIV, page 224.

² J. A. S. B., 1911, p. 615.

³ *Ind an Antiquary*, Vol. XXI, pp. 97-101.

curiously, it is applied to him. Mr. R. D. Banerji, M.A., in his Monograph on the Pālas of Bengal,¹ is inclined to discredit the statements of the *śloka* on this ground. When a *śloka* describing some events in the history of a monarch, occurring in a copper-plate of his son, is reproduced in a copper-plate of the great-grandson of that monarch and is applied to that great-grandson, it is presumable that the former application is correct, and the latter plate is (i) either a forgery or (ii) the composition of a very silly panegyrist, who was unaware of the historical significance of the *śloka* and took it only as an attempt at conventional panegyrics, or (iii) the repetition denotes some similar event in the life of the latter monarch.

The inscription is incised under the lotus-seat of a standing image of Nārāyaṇa (Viṣṇu) about 3' high, between two kneeling figures. It is in a perfect state of preservation and is legible throughout without any difficulty. The lines measure each 6" in length and the characters are $\frac{3}{4}$ " long. The characters belong to the North-Eastern variety, specifically called the **Kuṭila character**, which gave birth to the Bengali characters of the modern days. The inscription is **dated**; but the date is given in regnal years. It refers itself to the reign of a king called Mahipāla, presumably **Mahipāla I** of the Pāla dynasty of Bengal; Mahipāla II had a very short and troubled reign, terminating in the successful Kaivarta revolt. As the chronology of the Pāla kings of Bengal is still uncertain, it is difficult to give the exact year of the inscription; but it cannot be far removed from **976 A.D.**

The language is **Sanskrit**. In orthography, the only point to note is the absence of the *avagraha* sign in *punyayaśō abhi*² (l. 4). No distinctive mark of *virāma* is added to final consonants. There are **numerical figures** for 3, 2 and 7.

TEXT.

- 1 [सिद्धिरस्तु]³ सम्बत् ३ माघदिने २७ श्रीमहोपालदेवराज्ये
- 2 कीर्त्तिरियं नारायणभट्ट[१]रकाख्या समतटे वि(वि)लकीन्द-
- 3 कीयपरमवैष्णवस्य वणिकलोकदत्तस्य वसुदत्तसुत-
- 4 स्य मातापितृोरात्मनश्च पुण्ययशोभभिहृद्ये³

TRANSLATION.

May success attend. The year three, the 27th day of Māgha. In Samatāṭa, in the kingdom of Śrī Mahipāla-dēva, this meritorious work, namely (the image of) the lord Nārāyaṇa, is of the merchant Lōkadatta, belonging to (the village of) Bilakindaka—a great devotee of Viṣṇu—son of Vasudatta, for the furtherance of the spiritual merit and fame of himself and parents.

3. THE KEOĀR VIṢṆU IMAGE INSCRIPTION.

The inscription was discovered by myself in 1909. That year, in the month of June, I happened to be on a visit to the little village of Keoār, some three miles to the south-east of Rāmpāl, the famous site of the ancient capital of the Sēna kings of Bengal, in the Munshiganj Sub-division of the Dacca district. I found the image lying on its face, half buried in earth, and on turning it for inspection, I noticed the inscription. The image has now been fixed against the outside wall of the *maṭh* in the same village.

The inscription is incised on the pedestal of an image of Viṣṇu, about 3' in height. It is in four lines, each line measuring 7"; but the last line is an inch shorter, for want of plane space to write upon. The letters are about $\frac{1}{2}$ " in height and are everywhere boldly incised.

¹ *Memoirs, A. S. B.*, Vol. V, No. 3.

² Expressed by a symbol.

³ Read यशोभिरुद्ये.

The second couplet has been much injured towards the end by the erosion of the stone, and the several letters could with difficulty be recognized.¹

The inscription is in verse throughout, and consists of two couplets. The language is correct Sanskrit, with only a single exception, which is perhaps an engraver's mistake. The letters belong to the Kuṭila variety, current in Bengal in the 10th, 11th, and 12th centuries. The inscription is not dated; but paleographical considerations would not possibly allow of an earlier date than the early part of the 13th century A.D. It records the installation of an image of the lord Viṣṇu by one Vaṅgōka, great-grandson of Śauriśarman, grandson of Pitāmaha and the offspring of the couple Sayōga and Anūyami.

The absence of a royal name in a pretty long inscription is rather remarkable, though by no means uncommon. It may suggest that the inscription belongs to a period when there was no king worth the name to refer to at the time of the installation of the image. There is another fact which confirms this supposition. The Brāhmaṇa family to which Vaṅgōka belonged is spoken of as hailing from some place in Varēndri, i.e. north Bengal. They must have migrated to Vaṅga, which included the pargana of Vikramapura, the region where the image was found, not long before the installation of the statue, as the fact of their descent from a stock of Varēndri was, in Vaṅgōka's estimation, still of sufficient distinction to merit a special mention. The name Vaṅgōka is also significant. In a family where the first three of the line are named in pure Sanskrit after the sacred names of gods, the naming of the fourth member after the name of a country signifies that he was born just after the family had migrated into that country, and the migration was an important event in the family history.

The period at the end of the 12th century A.D. which necessitated the migration of Varēndri Brāhmaṇas from north to east Bengal must have been the time when Lakshmaṇasēna was worsted by Muhammad-bin-Bakhtyar, about 1200 A.D., and the old king and his court fled to Vikramapura. Muhammad established his court at Deb-kot, 14 miles south of Dinajpur, in the heart of Varēndri, and orthodox Brāhmaṇas must have had a rather hot time of it, necessitating flight to the Vaṅga country, where the Sēnas still had sway. The history of the reign of the sons of Lakshmaṇasēna is very imperfectly known; but erasures of royal names on their copper-plates suggest fratricidal war and consequent anarchy, and the present inscription may well belong to this troublous period.

TEXT.

- 1 [सिद्धिरस्तु]² अयमानुयमेयेन सयोगाङ्गभुवा विभुः [I]
- 2 वङ्गोक्तेन कृतो विष्णुर्विष्णुसालोक्यकाम्यया [II]
- 3 वरेन्द्रीतटकीयेन शाण्डिल्यकुलजन्मना [I] पिताम-
- 4 हस्य पीत्रेण प्रणमा श्रीरिशर्माणः ॥

TRANSLATION.

May success attend! Longing for a residence in the heaven of Viṣṇu, this (image of) the Lord Viṣṇu was consecrated by Vaṅgōka, hailing from [the village of] Tapaṭaka in Varēndri, offspring of the body of Sayōga and (begotten on) Anūyami, in the race of (the Saint) Śāṇḍilya, grandson of Pitāmaha and great-grandson of Śauriśarman.

¹ I should put it on record here that the assistance of my friend Prof. Rādhāgōvinda Bāṣk, M.A., was of very great use to me in obtaining a correct decipherment and interpretation of the inscription.

² Expressed by a symbol.

Some Image Inscriptions from East Bengal.

I. The Bharella Nartesvara Image Inscription of the reign of Layahachandra : the 18th year.



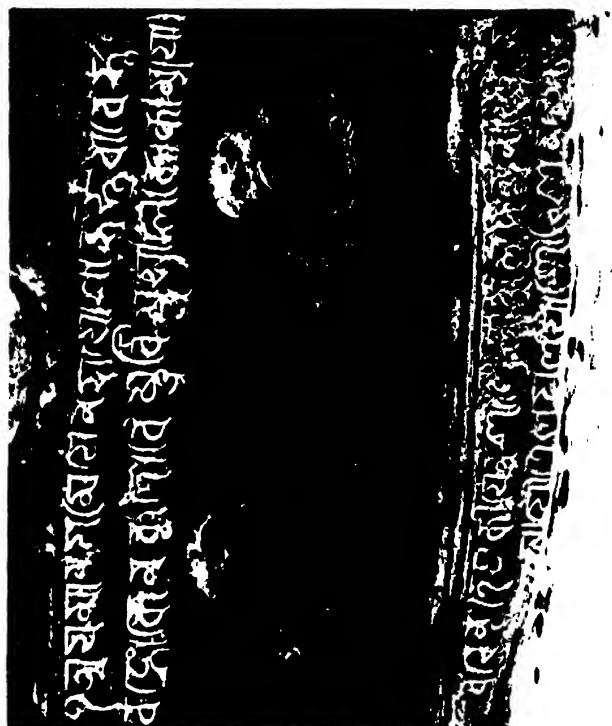
SCALE ONE-HALF

II. The Baghaura Narayana Image Inscription of the reign of Mahi-Pala I : the 3rd year.



SCALE TWO-THIRDS

III. The Kewar Vishnu Image Inscription.



SCALE ONE-HALF

IV. The Deulbadi Sarvani Image Inscription of Mahadevi Prabhavati, Queen of Deva-Khadga.



SCALE FOUR-FIFTHS

V. The Dacca Chandi Image Inscription of Lakshmana-Sena : the 3rd year.



SCALE TWO-THIRDS

4. THE DEULBĀDĪ ŚARVVĀNĪ IMAGE INSCRIPTION OF MAHĀDĒVĪ PRABHĀVATĪ, QUEEN OF DĒVA-KHAḌGA.

Deulbāḍi is a village situated about 14 miles south of Comillā, on the trunk road running from Comillā to Chittagong. The image with which we are dealing was found about two decades ago by one Muhammad Faqir Choudhury, when demolishing the ruins of an ancient structure standing on plot No. 447 of the Settlement Map of Jāmmurā, a *mauza* in which the small village of Deulbāḍi is included, under Police Station Chauddagrāma, in the Tippera district. A fine brass statuette of the sun-god, in which the god is represented sitting inside his one-wheeled car, drawn by seven spirited horses, as well as some brass *liṅgas*, of which one was inscribed with a short votive inscription,¹ were discovered along with the image of Śarvvānī. Babu Tarunath Chakrabartī, the then Sub-Inspector of Police in charge of the Chauddagrāma Police Station, secured the images and placed them with one Kailās Chandra Chakrabartī of Deulbāḍi. There the images remained for about sixteen years, until they were bought by Babu Saratchandra Chakrabartī and Babu Nibāran Chandra Chakrabartī of the village Dājdi, Police Station Chāndpur, District Tippera. These two brothers are the priests of a temple on the Chāḍimurā peak of the Lālmāi Hills in the district of Tippera, near the Lālmāi Station on the Assam Bengal Railway. As the image installed in the temple of Chāḍi had long disappeared, these two brothers were anxious to get an image of Chāḍi for their temple, and they obtained the present image from a cousin of Kailās, who in the meantime had died. The image was brought to Comillā along with the other images discovered, and for cleaning they were placed in the care of Babu Maheśa Chandra Bhaṭṭāchāryya, a well-known Homœopathic druggist. When the images were with Maheśa Babu, the inscriptions on the Śarvvānī image and on one of the *liṅgas* began to attract attention. Babu Anukūlchandra Roy, Manager, Wards' Estates, Comillā, sent me an imperfect rubbing of the inscription on the image. I at once recognized that this was a new inscription of the Khaḍgas and wrote to Anukūl Babu to that effect. With the help of Mr. F. C. French, C.S.I., I.C.S., late Commissioner of the Dacca Division and President of the Dacca Museum Committee, I opened negotiations for the acquisition of the image for the Dacca Museum and went over to Comillā and obtained rubbings of the inscription and photographs of the image. The owners of the image, after much persuasion by Rai Annadāprasād Sēn Bahādur, the Additional District Magistrate, and Mr. T. Emerson, C.I.E., I.C.S., the then Magistrate of Tippera, consented to part with the image on condition that a duplicate should be made for them and a sum of money given. At this juncture the annual grant received by the Dacca Museum from the Bengal Government was reduced from Rs. 6,000 to Rs. 3,000 and all ideas of acquiring the image had to be abandoned. The image was taken to the temple at Chāḍimurā and set up for worship. I am informed that it has since been stolen from the temple and lost sight of.

The image is of the goddess Śarvvānī, one of the forms of Durgā. It is about 20" in height and rather heavy. A portion of the rim of the top towards the proper left is broken away and lost. The image is cast in low relief. The technique is rather crude, and the pose rigid. The goddess has eight arms, holding on the proper left, from the bottom upwards, the thunderbolt, the bell, the bow and the shield; and on the proper right, from the bottom upwards, the conch-shell, the goad, the sword and the wheel. Two maids are on her two sides, holding fly-whisks. She stands on a lotus-seat on the back of a couchant lion, with a rather well-executed head. The image was gilt all over with thin sheets of gold, the pious work of queen Prabhāvatī, and the original gilding is still intact in places. The white patches in the photograph show where it still clings fast.

The inscription refers itself to the reign of a king called **Dēva-Khaḍga** of the **Khaḍga** line of kings, who ruled over **Samatāṭa**¹ towards the end of the 7th century A.D. The existence of the **Khaḍga** line of kings in east Bengal became known from the discovery in 1884 of two grants of **Dēva-Khaḍga**, evidently the most powerful monarch of the line. These two plates were finally edited by the late Babu Gangamohan Laskar, M.A., in the *Memoirs of the Asiatic Society of Bengal*, Vol. I, No. 6.

The inscription records the names of three generations of the **Khaḍgas**;—**Khaḍgōdyama**, the founder of the line, his son **Jāta-Khaḍga** and his son **Dēva-Khaḍga**. All these names were known from the copper-plate grants of **Dēva-Khaḍga** referred to above, and it has nothing new to tell us in this respect. It informs us that **Prabhāvatī**, queen of **Dēva-Khaḍga**, caused the image of **Śarvvānī** to be covered with gold leaves out of reverence for the goddess. The name of **Prabhāvatī** also was known previously, as she figures in one of the plates of **Dēva-Khaḍga** as a donor of land to a Buddhist monastery. The royal family of **Samatāṭa** seems to have been of a particularly religious turn of mind. Yuan-Chwang states that **Śīlabhadra**, the head of the University of **Nālanda**, came of the royal stock of **Samatāṭa**. We can hardly conceive at this distance of time what an exalted position it must have been. As the head of the greatest centre of Buddhist culture of the time, he must have occupied the position of the dictator of the then Buddhist world. It is probable that he was a **Khaḍga**, and those who kept alive the name of **Khaḍgas** in later times tried in their way to emulate their illustrious predecessor by noble deeds of piety and benevolence. **Dēva-Khaḍga** was a donor of land to Buddhist monasteries, and his wife and son also followed in his footsteps, as appears from his grants. Yuan-Chwang calls the king of **Samatāṭa** a devout Buddhist and **Dēva-Khaḍga** seems very well to merit this appellation. The pious soul of queen **Prabhāvatī** has once again spoken to posterity through the present discovery.

The image reveals a curious state of religious belief prevalent in those days. Queen **Prabhāvatī** and the members of her husband's family were all devout Buddhists; but all the same she did not feel it irreligious in any way to pay reverence to a goddess who must have belonged to the Brahmanical pantheon. Harshavardhana, to whose court Yuan-Chwang came, in a similar manner divided his veneration among the Buddha, the Sun-god and **Śiva**. All these clearly show that we must revise our idea of the Buddhists and Hindus of ancient days as two communities shut up in watertight compartments. They were more like the present-day **Śāktas** and **Vaiṣṇavas** than otherwise.

Asrafpur, near the bank of the old and the real **Brahmaputra**, the find-place of the two plates of **Dēva-Khaḍga**, and **Deulbāḍī**, sixty miles south-east, almost at the foot of the hills of **Tipperra**, the find-place of the present image, mark respectively the western and eastern limits of **Samatāṭa**, the kingdom of the **Khaḍgas**.

The inscribed surface at the base of the image is about 8" in length, and the characters are approximately $\frac{1}{2}$ " long. They are bigger in the two extreme sections than in the middle one. They are incised pretty deeply and are in an almost perfect state of preservation.

The characters belong to the Eastern variety of the **Gupta script** current in Bengal towards the end of the 7th and the beginning of the 8th century A.D. Mr. Laskar, at the time of editing the plates of **Dēva-Khaḍga**, assigned them to "the 8th or 9th century A.D.", while Mr. R. D. Banerji in his *Bengali History of Bengal* is, on paleographical grounds² inclined to push the date still further forward. I believe, however, that these **Khaḍga** inscriptions cannot be taken farther than the beginning of the 8th century A.D. No one, I believe, can

¹ Vide my paper "A forgotten kingdom of East Bengal," *J. A. S. B.* March 1914.

² Vide also Mr. Banerji's Monograph on "The Palas of Bengal." *Memoirs, A. S. B.*, Vol. V, No. 2, p 67.

compare the letters of the present inscription, as well as those of the two plates of Dēva-Khaḍga, with the letters of the Nidhanpur plates of Bhāskaravarman,¹ the Aḥṣad and the Shahpur inscriptions of Āditya-sēna-dēva, the Deobarnark inscription of Jivita-gupta, the Banskhera and Madhuban plates of Harsha, without coming to the conclusion that a span of about a hundred years covers them all. A comparison of the characters of the Khaḍga inscriptions with those of the earliest known inscriptions of the Pāla kings leaves no doubt that the former must be considerably prior to the latter, possibly by about a century.

There is nothing special to note in the orthography, except the doubling of *v* after *r* in Śarvvāpī. The use of only one symbol for *b* and *v* is almost the rule in Eastern Indian inscriptions, as in the modern Bengali language.

The language is correct Sanskrit verse. The inscription is in three lines on three sections; the first two lines run over all the three sections, while the third line is incised only on the middle one.

I edit the inscription from rubbings and photographs in my possession.

TEXT.

- 1 [सिद्धिरस्तु]² स्वस्ति खड्गोद्यमो नाम नृपाधिराजस्तत्सूनुरासीद्भुवि जातस्वङ्गः [।*]
तदात्मजो दानप-
- 2 तिः प्रतापी ओदेवखड्गो विजितारिखङ्गः ।[।*] राजस्तस्य महादेवो
महिषो ओप्रभावती [।*] स(श)र्वाणीप्रतिमां
- 3 भक्त्या हेमलिप्तामकारयत् । * *

TRANSLATION.

May success attend ! May welfare accrue ! There was an overlord of kings, Khadgōdyama by name. His son (became known) on earth (as) Jāta-Khaḍga. His powerful and benevolent son Dēva-Khaḍga was (like) a sword, a conqueror of all foes. Prabhāvatī, the queen-consort of this king, out of reverence for Śarvvāpī, covered her image with gold.

5. THE DACCA CHANḌĪ IMAGE INSCRIPTION OF THE 3RD YEAR OF LAKSHMAṆA-SĒNA-DĒVA.

The inscription is on the pedestal of an image of Chanḍī, discovered about four decades ago in the ruins of Rāmpāl, the site of Śrī Vikramapura, the capital of the Sēnas referred to in their land grants, in the *pargana* that still goes by the same name, included at present in the Dacca and Faridpur districts. It is at present worshipped in a small temple situated in the Dālbāzār quarter of Dacca on the Farāshganj Road, a little to the east of the Northbrook Hall. The late Babu Baikunṭhanāth Sēn, Deputy-Inspector of Schools, of Sonārang, District Dacca, was an enthusiastic collector of images, quite a crop of which used to turn up every year in the course of casual excavations in and around Rāmpāl. These, on discovery, were usually put under a tree by a roadside to receive the chance worship of the passers-by. Sometimes they were put to altogether unholy uses and sometimes consigned again to neglect and oblivion. It does great credit to Baikuntha Babu that he alone, amidst the general callousness of his countrymen, was alive to the artistic and archaeological merit of these relics of the past, and not a few of them owe their safe preservation to his labour. Many pieces of his collection are, it is gratifying to note, now in the Dacca Museum. This inscribed image of Chanḍī was one of Baikuntha Babu's finds, and he must have presented it to the founder of the temple in which it at present lies.

¹ *Ep. Ind.*, Vol. XII, p. 65.

² Expressed by a symbol.

The inscription, however, seems to have aroused little interest at the time of the discovery, and its existence was unknown to the gentry of Dacca. In April 1911 Mr. E. D. Banerji, M.A., of the Archæological Survey, and some friends discovered it, and from that time it has been known to the public.

In August 1911 Mr. Banerji published a reading of this inscription in the *Bhādra*, 1318 (B.S.), number of the *Pratibhā*, the journal of the Dacca Sāhitya Parishat in an article on king Lakshmaṇa-sēna of Bengal. Four months later, in the Pausa number of the same journal, in a long article on the Sēna kings of Bengal, I gave my reading of the inscription. In June 1912 I published the inscription, with a half-tone reproduction of both the inscription and the image, in the *Dacca Review*, in an article on the era of king Lakshmaṇa-sēna. In *J. A. S. B.*, July 1913 Mr. Banerji re-published it in his article on king Lakshmaṇa-sēna. The inscription has thus been published four times; yet it cannot be said that up to this time it has been properly edited. Mr. Banerji's reading in the *J. A. S. B.*, as well as his description of the image, is not free from mistakes.

The image is about 30" high and is a rather fine example of Bengal sculpture of the time of the Sēnas. The goddess has four arms and she stands in a graceful *tribhanga* pose on a full-blown lotus over a couchant lion. Her upper left hand holds a bunch consisting of a half-blown lotus with some buds and leaves. The lower left hand holds an ornamental basket-like thing, either a flower basket or a waterpot. The upper right hand holds an elephant-goad and the lower one is in the *Varada-Mudrā*. Two attendant female figures stand on the two sides of the goddess, and two elephants are pouring water over her from two pitchers. She seems to be a curious mixture of Gaja-Lakshmi and Chāṇḍī and may represent the Śakti of the god Harihara.

The inscription is in an excellent state of preservation. The inscribed surface is about $9\frac{1}{2}$ " in length, and the characters are approximately $\frac{1}{8}$ " high. The characters may be called Bengali characters of the 12th century A.D. They are not very well executed and are far inferior in execution to those of the Deopara inscription of Vijaya-sēna. They may be compared in style and coarse execution to the Buddha Gayā inscription of Aśokachalla-dēva executed in the 51st *atita-rājya* year of Lakshmaṇa-sēna-dēva (*Epigraphia Indica*, Vol. XII, p. 29). In this connection I may lay stress on a fact which is sometimes forgotten. Printed types have accustomed us to a standard; but in ancient times contemporary inscriptions varied as much in style as handwritings; because the inscriptions were always written with ink or lac on the surfaces to be inscribed and were then engraved by sculptors who were not always literate.

The inscription refers itself to the third year of the era of king Lakshmaṇa-sēna of the Sēna dynasty of Bengal. As the era has been proved to have begun in 1119 A.D.,¹ the inscription must have been incised in the year 1121 A.D. It records that *Adhikṛita Dāmōdara*, son of *Māladatta*, began the image of Chāṇḍī in the third year of the era of Lakshmaṇa-sēna and that his relative (younger brother?) *Nārāyaṇa* installed the image in the fourth year. The inscription is in two lines on three sections. I edit it from the original stone. The language is incorrect Sanskrit. *Suba* and *adhikṛita*, which should have been in the 3rd case according to grammatical rules, are both used in the 1st case.

* TEXT.

- 1 श्रीमन्नक्षत्र- माखदे(द)त्तसुत अधिष्ठत श्रीदामोदरे- श्रीनारायणेन
- 2 सेनदेवस्य सं ३- ण श्रीचण्डीदेवी समारब्धा तद्गुदकना-प्रतिष्ठितेति ४ ॥

¹ *Indian Antiquary*, Vol. XIX, p. 1.

Note on the reading.

The decipherment of this short inscription presents some very serious difficulties. The fourth letter in what I have read as *Māladetta* is very curious. It bears little resemblance to any letter or compound used in the inscriptions of the time. Mr. Banerji has read it as *Mālade-i*; but certainly *ttu* it is not like any *i* hitherto met with in the inscriptions of the period. It has moreover no perpendicular straight stroke to the proper left, distinctive of an *i* of the period. The following additional objections to the reading may be advanced :—

(i) *Māladei* must be a Prākṛit form of *Māla-dēvi*, and it is not easy to understand why a Prākṛit word should be used in a Sanskrit inscription.

(ii) The use of only the mother's name to denote parentage is unusual in a North Indian inscription.

The letter that one would expect here is *va*, reading the name as *Māladēva*; but the letter used does not bear the slightest resemblance to the *va* of the period or any of the *va*'s used in this inscription. Then what is this letter? My reading of the letter as *ttu* is only conjectural, based on the principle of greatest resemblance and possibility and on a surmise which I shall advance presently. [Perhaps we should read *Mālā-khaḍga*.—Ed.]

The second difficulty is about the reading of the name of the donor. Mr. Banerji has read it as *Dāmōdrēṇa*; but *ē* is clearly absent from *dra*. We can read it at best *Dāmōdrana*, which is inadmissible. I have read it *Dāmōdarēṇa*, which is admittedly the correct form of the word. It should be noted that the *ā* mark of *nā*, the letter below *dra*, is projected upwards to a considerable distance. I believe the engraver wrote *Dāmōdara* through mistake and attempted to put in *ra* between *da* and *nā*. Want of space stood in his way, and he fared very ill. The projection of *ā* of *nā* should, in my opinion, be taken for the engraver's attempt to make a small *ra*, and the *r* mark of *Dāmōdra* should be taken as the *ē* he tried to make. I have thus read *rē* between *da* and *nā*.

The next difficult word is what I have read as *tad-bhrāḍakanā*. Mr. Banerji read it as *tabhrāḍakana*, which gives no meaning whatever, and which moreover is incorrect, as *na* has a clear *ā* after it. The word must be a qualifying word of *Nārāyaṇa*, which follows it, and consequently must be in the 3rd case. It is also expected that the word should signify some sort of relationship between the donor and the founder, whose names prove them to have been close relatives. I have therefore read the word as *tad-bhrāḍakanā*, and would translate it as "by his younger brother." The word *bhrāḍakana*, again, is perplexing and new. I can suggest nothing better than that it was an irregular East-Indian compound of the two words *bhrātā* and *kantyaṇ*.

Now, *Dāmōdara* was evidently a high officer of the state, and we may expect to see his younger brother too in a similar position. We know from the Tarpanighi plate of *Lakshmaṇa-sēna*¹ that one *Nārāyaṇa-datta* was his minister of peace and war. Can this *Nārāyaṇa-datta* be the *Nārāyaṇa* of the present inscription? *Māla* is an appellation of *Vishṇu*, and the names *Nārāyaṇa* and *Dāmōdara* are also names of *Vishṇu*. It was evidently a *Vaishṇava* family and the name of the father agrees well with the names of his sons. If our conclusions, which are based on a series of surmises, are right, and if *Nārāyaṇa* of the present inscription can be identified with *Nārāyaṇa-datta*, the minister of peace and war of *Lakshmaṇa-sēna*, we may read the name of *Dāmōdara*'s father as *Māladetta* and emend it to *Māla-datta* by taking the *e* of *de* as an engraver's mistake.

Mr. Banerji read a *visarga* after *iti*, which is inadmissible; it should be read as 4, resembling the modern Bengali symbol for 4. It is not usual to put the two ciphers of a *visarga* in touch with one another as has been done in the present case.

TRANSLATION.

The year 8 of the era of the illustrious Lakshmaṇa-sēna-dēva. The (image of the) goddess Chaṇḍī was begun by the Superintendent (*Adhikṛita*) Dāmōdara, son of Māladatta and was installed by his younger brother Nārāyaṇa (in the year) 4.

No. 25.—A NOTE ON THE VAKATAKA INSCRIPTION FROM GANJ.

(No. 4 of Vol. XVII of the *Epigraphia Indica*.)

By K. N. DIXSHIT, M.A., POONA.

The last four paragraphs of the article on 'a Vakataka inscription from Ganj' illegible correction in the light of information available from the Poona plates of the thirteenth year of the Vākāṭaka queen Prabhāvatiguptā (*Ante*. Vol. XV, p. 32 ff.) and another grant of the 19th year of Pravarasēna (II) issued by the same queen Prabhāvatiguptā (*Ind. Ant.* Vol. LIII, page 48). The characters used in the Ganj and Nachna inscriptions are later in date than those of the Poona plates of Prabhāvatiguptā. The Prithvishēṇa of these inscriptions is therefore more likely to be identified with Prithvishēṇa II of the Bālāghāt plates, who was the great-grandson of Prabhāvatiguptā and not with Prithvishēṇa I her father-in-law. On paleographical grounds, Prof. Jouveau-Dubreuil attributes the Nachna inscriptions to the fifth century instead of the 4th and to Prithvishēṇa II, in preference to Prithvishēṇa I (*Ancient History of the Deccan*, page 73). The present epigraph which is almost identical with the Nachna inscriptions, can therefore also be assigned to Prithvishēṇa II who must have lived in or about the last quarter of the 5th or the opening years of the sixth century A.D.

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¹The figures refer to pages: *n.* after a figure, to footnotes; and *add.* to the additions on pp. vii to xiii. The following other abbreviations are used:—*ch.*—chief; *co.*—country; *di.*—district or division; *do.*—ditto; *dy.*—dynasty; *E.*—Eastern; *f.*—female; *k.*—king; *m.*—male; *mo.*—mountain; *ri.*—river; *s. a.*—same as; *sur.*—surname; *te.*—temple; *vi.*—village or town; *W.*—Western.

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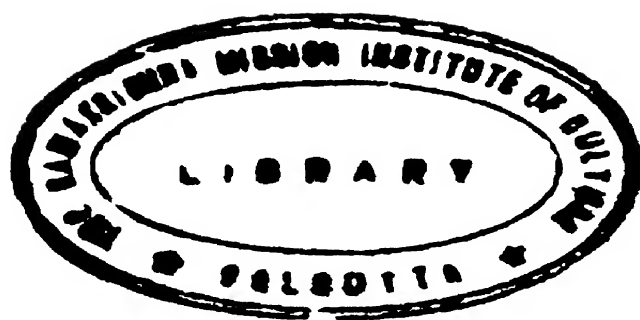
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